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THE TWENTY-FIFTH YEARBOOK

OF THE

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

PART I

THE PRESENT STATUS OF SAFETY EDUCATION

Prepared by the Society's Committee

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E. G. Payne, M. S. Pittman, Mary O. Pottenger,
Idabelle Stevenson, and Ruth Streitz

Edited by

GUY MONTROSE WHIPPLE

THIS YEARBOOK WILL BE DISCUSSED AT THE WASHINGTON MEETING OF THE NATIONAL SOCIETY, SATURDAY, FEBRUARY 20, 1926, 8:00 P.M.

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INTRODUCTION

GUY MONTROSE WHIPPLE
Secretary of the Society and Chairman of the Society's
Yearbook Committee on Safety Education

The National Society for the Study of Education has consistently aimed to keep its members and the still wider circle of readers of its publications accurately informed concerning the most significant developments in the field of education. Some of these developments have pertained to important advances in the handling of long established phases of educational effort—witness the recent Yearbook on reading and the series of Yearbooks dealing with the minimal essentials; others of these developments have pertained to the advent of new movements in education—witness the recent Yearbook on adapting the schools to individual differences, the Yearbook on intelligence testing, and the two Yearbooks on new materials of instruction.

In pursuance of its aim, the Society is now financing a series of Yearbook committees, as is described fully elsewhere in this volume. One of these committees is planning a careful survey of the technique of curriculum-making, in the endeavor to shed light upon the processes involved in effecting alterations in the materials of instruction and perhaps in the aims of instruction in the public schools of to-morrow.

The present volume obviously fits neatly into this program. It may be regarded as supplying still further information concerning certain new materials of instruction and as emphasizing the demand for a certain change of emphasis, even though a minor one, in some of the recognized aims of instruction.

The Committee in charge of this Yearbook on Safety Education is anxious that its readers should not misinterpret its meaning, should not suppose that the Committee regards this particular assemblage of material as being the one and only important addition that needs to be made to our materials and aims of instruction. It must be obvious that the schools are being besieged by demands for the introduction of new subjects (or for increased emphasis upon certain subjects already incorporated in the curriculum)—

subjects which, in the opinion of their expositors and adherents, are of very great practical import for the future citizen. Safety is in much the same situation in this respect as are many other so-called 'practical' subjects, like health, thrift, citizenship, and character.

The general situation with respect to these and similar 'special' subjects would seem to be that they represent fields of information and training that are felt by the general public to be so intimately conjoined to the job of living that they cannot properly be relegated to subordinate places in the scheme of education. They represent, in the opinion of some persons at least, aspects of life that are so organic and vital that they have an inherent right to form a part of any course of study that pretends to fit its clients to confront successfully the complicated task of living happily and effectively amid the surroundings and under the conditions of modern life.

Safety education, then, has been selected as merely one of several newer claimants for specific recognition in the curriculum. It has been selected partly because of the exigency raised by the rapid increase in hazards, particularly with respect to traffic conditions, partly because it is perhaps more thoroughly representative and inclusive than others of these special subjects, partly because there is now available a fairly well-defined and comprehensive mass of material for its subject matter, and partly because it has already become in certain school systems a well-recognized and well-organized subject of instruction.

Just what will be the ultimate place of safety education in the public schools the present Yearbook does not attempt to say. After further development has taken place, there will doubtless be critical study and rigorous analysis of the whole movement. Here we have been concerned primarily with presenting, as carefully as we could, the "present status" of the movement.

In the preparation of this Yearbook the Society has been most fortunate in finding ready at hand an organization that was both able and willing to coöperate with it. The volume may be regarded as the joint effort of a group of men mainly interested in the development of the public schools and a group of men mainly interested in the campaign for the prevention of accidents. The National Safety Council is the most thoroughly representative national organization in the field of safety, with a large membership of

employers, public officials, organizations, and individuals concerned with the various phases of accident prevention in the industries, the home, and public places. It has local branches in many cities. This Council has seen clearly enough the fundamental fact that to decrease accidents, there must be a more effective teaching of safety. Accordingly, the Council's Education Division for several years has been devoting its energies, through the work of field secretaries, the publication of manuals, a magazine, etc., to the task of getting safety education before the schoolmen of the country in an educationally palatable form. In fact, the National Bureau of Casualty and Surety Underwriters, which finances the Education Division of the National Safety Council, is now supporting three graduate fellows who are making special investigations of certain of the educational problems involved in the general undertaking. It will be readily understood, therefore, that the National Safety Council has been most willing to coöperate with the National Society for the Study of Education in the production of this volume, and that its coöperation has, indeed, been of cardinal import, without which the Yearbook would have been impossible. A perusal of the Table of Contents will make clear the extent and nature of the coöperation.

The Committee trusts that members of the Society will find themselves in sympathy with the general aims of the safety education movement, and that, in particular, those directly concerned with the formulation of courses of study for the schools will find in the detailed accounts of methods of handling this subject in typical cities and in the detailed accounts of actual classroom work in various types and grades of schools, material of real value.

CHAPTER I

THE PROBLEM

SIDNEY J. WILLIAMS
Director, Public Safety Division, National Safety Council
Chicago, Illinois

The accident problem in the United States to-day may be stated in terms of the following figures, which closely approximate the experience for the year 1924:

Total accidental fatalities	85,000
Traffic fatalities	23,000
Other public accident fatalities	19,000
Home accident fatalities	20,000
Industrial fatalities	23,000
Total accidental fatalities (children under 15)	21,000
Traffic fatalities (children under 15)	7,000
Non-fatal personal injuries	5,000,000 to 10,000,000
Direct economic cost, approximately $5,000,000.00.	

Our total accidental fatality rate is more than twice as great as in England and Wales, and nearly fifty percent greater than in Canada, which is next us in the list. Not only do we exceed all other countries for which records are available in automobile fatalities, owing to our much higher automobile registration per capita, but we likewise exceed them in the fatality rate from such other common causes as falls, burns, and steam and electric railroads, while our drowning rate is exceeded only by Canada and by such maritime countries as Scotland, New Zealand, Australia, and Norway.

Despite these unfavorable comparisons, it is worth noting that our total accident death rate in recent years has been about ten percent below the average for the first decade of this century. In almost all the common classifications there has been so definite a decrease, especially in the case of railroad and drowning accidents, as more than to neutralize the very rapid increase in automobile fatalities.

The accident situation in any country at any time naturally reflects existing conditions and habits of living. Snakes in India kill about as many persons as automobiles in the United States;

wild animals in India kill about as many as street cars in the United States; deaths by snake bites or wild animals are negligible in this country, and so are deaths by automobiles and street cars in India. The rapid advances of the last half century in the mechanical manufacture of goods and in mechanical transportation have almost wiped out many of the hazards, as well as the discomforts, of our forefathers in pioneer days, but each invention, each development of mechanical or electrical or chemical forces, has brought new hazards of its own. Over against the romantic story of steel is—or was—a parallel, but horrible story of almost daily killings and maimings and burnings of steel mill workers a generation ago. A little later in our electrical industries, and still later in our chemical industries, the same rapid development of production took place, accompanied by a corresponding sacrifice of human life, until new precautions were developed for each new hazard. Most recent of all, and most in the public eye, is the automobile, growing in numbers from about one million in 1912 to eighteen million to-day, and with its death list growing from less than three thousand to about twenty thousand in the same period.

Thus, it may be truly said that, in one sense, the modern safety movement is simply an attempt to catch up with our mechanical development. As Mr. A. W. Whitney has pointed out, the slow processes of evolution granted to our remote ancestors perhaps a hundred thousand years in which to accustom themselves to the threat of each new monster, but our modern megatherium, the automobile, comes out in a new model every year. So likewise with the inventions of Edison, Steinmetz, and thousands of others in the field of the physical sciences; so likewise with the translation of these inventions into terms of large scale production through the organizing genius of a Carnegie or a Henry Ford, with their lieutenants or coadjutors in organized selling and large scale financing. Is it any wonder that society in self-defense must devise, organize, and promote, with something like the same skill and the same energy, instruments and methods for the protection of life and limb against the new hazards of this new world?

But this is by no means a complete picture. Even if there were no organized safety movement and no safety instruction in schools, it is possible that the total accident *rate* would not increase.

Self-preservation is still among the strongest of human motives. Most men and women, and most children old enough to think, tend to adjust their habits in some measure to meet new dangers. Our present mechanical civilization has probably eliminated as many hazards as it has created. There was certainly no organized safety movement before 1910, yet such prior records as are available do not indicate any increasing death rate. As for the comparison with other countries, already noted, is it not true that our higher fatality rate corresponds to a higher intensity of physical (not necessarily intellectual) life? The average American would say that if living in this country is two or three times as hazardous as in England or France, it's worth it!

No, the safety movement is more than a reaction to new hazards. It is one aspect of an increased respect for human life—for the life and happiness, not only of the aristocrat, but also of every humble man and woman and child. The safety movement is of a piece with tenement house legislation, the Red Cross, preventive medicine, community chests, baby clinics. These and many similar examples certainly indicate that, while there is still plenty of selfishness and plenty of brutality in the world, there is a higher regard for the individual human life to-day, in America at least, than ever before. This is not disproved by an occasional emotional outburst, even if on so tremendous a scale as the World War. Not only is it true that our annual accidental fatalities in the United States far exceed the total of American lives lost in the War; it is also true that the *saving* of life during the past sixteen years—the difference between actual deaths during that period and what the total would have been at the 1907 rate—is about five times our loss of life in the War. Every two years—despite the automobile—we save enough lives, as compared with the 1907 rate, to replace our sacrifices in France. In other words, while to a certain extent an increase in hazards is more or less automatically accompanied by an increase in precautions against the new hazards, the attitude of present-day society is that we must go still further—that we must consciously, systematically, and skillfully seek by an organized safety movement still further to reduce the number of fatalities, still further to conserve human life and happiness.

The attitude of the American people toward the accident problem may be stated thus: We expect, rather as a matter of course,

a constantly diminishing death rate from such 'normal' causes as drowning, fire, railroads, and machinery; and we "view with alarm" any increase from a new hazard, such as the automobile, and demand that something be done about it at once. This statement is true, we think, as far as any general statement can be true. We are still apathetic to some of the accustomed causes. Falls were until recently the principal cause of deaths and are still second only to the automobile. Falling was one of the original hazards of our earliest ancestors, but despite the experience of countless generations with this hazard, the shaky stepladder and the rocking chair substitute still flourish in the American home, and some 14,000 lives annually are still sacrificed to this cause. As in other matters, the American home is nearly a generation behind American industry in grasping the vital importance of the accident problem and in developing remedies and preventives. That is one of the principal reasons for teaching safety in the schools, because only through the schools can many homes, including the most hazardous kinds, be reached.

The great problem to-day, then, is to transmute this general popular acceptance of the need for safety, into individual personal caution and regard for others. Many a man who contributes generously to a local safety campaign, is at times a reckless automobile driver. Many a mother who sews for the Red Cross is inclined to give her own children too little instruction in the hazards of the street and entrust them too much to a beneficent Providence. The attacks already made and to be made on this problem will be further described in succeeding chapters.

CHAPTER II

DEVELOPMENT OF THE SAFETY MOVEMENT

SIDNEY J. WILLIAMS
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Chicago, Illinois

A. THE INDUSTRIAL SAFETY MOVEMENT

The development of industry in the past few decades brought a large increase in the amount, power, and complexity of machinery and other manufacturing equipment, in the complexity of industrial processes, in the use of poisonous and other dangerous materials, and in the concentration of workmen. This caused a large increase in the number of fatal and other industrial accidents. Industry was developed from the standpoint of production, with little attention to the welfare of the human equipment. Industrial accidents were looked upon as a by-product, a price which had to be paid for industrial progress. Even the most humane employer generally thought he was doing his full duty and more if he gave a job as watchman to the man who had lost an arm in his employ or if he gave a few hundred dollars to the widow. The flood of immigration furnished an inexhaustible supply of labor and the death or crippling of a few thousand non-English-speaking immigrants was seemingly not considered a particularly serious matter. Even when factory managers began the study of modern efficiency methods, efficiency was thought of in terms of the product only, with little regard to the workers. The old common-law defenses of "assumption of risk," "contributory negligence," and "act of fellow servant" made the recovery of damages by an injured workman tedious and difficult, and most industrial managers accepted this point of view.

Between 1905 and 1910 a few far-sighted employers began to realize that accidents were wasteful, that they interrupted production, and that it was expensive to break in new men. They began to study their accidents, asking not "whose fault was it," but "how could it have been prevented." They concluded that, even though legally it might be negligence for a workman to put

his hand into unguarded gears, nevertheless the simplest way to prevent such an accident was to guard the gears. They therefore sought out all danger points which could possibly be guarded and proceeded to guard them. They began to study every industrial operation from the standpoint of the safety of the workman, as well as of speed and economy of production, and of quality of product.

Having done all this, they found that a large number of accidents still occurred which did not seem to be preventable by any improvement in the mechanical equipment or guarding. These accidents seemed to be entirely a matter of carelessness on the part of some workman or foreman. But the fact that the accidents were due to carelessness did not make them any the less expensive to the company, so the employers set to work to prevent these accidents also by a campaign of education, first among superintendents and foremen, and then among workmen. In each company and in each large plant a "safety organization" was set up, headed by a central safety committee, composed of executives, which was made responsible for the general direction of the safety campaign. A safety engineer or safety director was appointed to carry on the detail work, including both mechanical improvements and education. Inspection committees of foremen and of workmen were organized, and employees were invited to report dangerous conditions and practices and to suggest improvements. Mass meetings, posters, and similar methods were used to arouse the interest of the entire working force and to impress upon them these two things: first, that the accident problem is serious and that an accident is of concern to an injured workman and his family; and second, that the company alone cannot prevent accidents, but must have the coöperation of the management, subordinate executives, and rank-and-file employees. These pioneer employers found that persistent efforts along this line were successful in reaching even the most ignorant workmen and that a remarkable decrease in accidents was the result. They found that the saving to the company, even where no damages had been paid to the injured man, was much greater than the cost of the mechanical guarding and educational campaign.

Between 1910 and 1920, after this pioneer work had gotten well under way, the enactment of workmen's compensation laws gave

a tremendous impetus to the movement by fixing a part of the loss of time and earning power due to accidents as a direct charge upon the industry. A rapidly increasing number of employers became interested in the new method of accident prevention. This led to the formation in 1913 of the National Safety Council as a coöperative association serving as a clearing house of information and a medium for study and research. In 1925 the Council's membership included, in addition to other groups, over 3,600 employers of labor in various manufacturing industries, public utilities, mining, construction, and other industries. In many of these companies "safety" is to-day a highly organized, permanent, and profitable activity.

The last ten or fifteen years have likewise witnessed a great development of interest and activity in accident prevention on the part of insurance companies writing employer's liability and (later) workmen's compensation insurance. The great majority of employers are insured and the insurance carrier obviously benefits by a reduction of accidents among the employees covered. With the passage of workmen's compensation laws, insurance company managers, like industrial managers, began to think less about fighting claims and more about the prevention of accidents. To-day, these insurance companies and bureaus employ an army of engineers and inspectors to assist their assured in safety activity, and it is not difficult to foresee a time when, as in the case of steam boiler insurance to-day, the expenditures on preventive effort will exceed the payments for damages. In most cases a portion of the saving through accident prevention goes to the employer in the form of a lowered premium through "experience rating," with a penalty through increased premiums on the employer whose neglect or indifference produces an experience worse than the average. Competition between insurance carriers to-day is largely a competition between service departments, with safety service playing the most prominent part.

State labor departments and industrial commissions have also contributed greatly to the development of safety in industry. Fifteen years ago the function of such a department was conceived to be the enforcement of certain legal requirements for guarding belts and gears. This policy never produced results in accident prevention. In most of the important industrial states it has now

given way to a totally different conception of the state department as a friend and ally of both employer and employee in the prevention of the accidents from which both suffer. The more progressive state departments have coöperated most effectively with employers, insurance companies, and safety organizations in the formulation of adequate and up-to-date legal requirements and have likewise assisted employers in their safety organization and educational work.

It is impossible here to name all the agencies which have participated in our industrial safety development, but trade associations, engineering societies, and several bureaus of the Federal government are among those playing a prominent part.

While the industrial safety movement in the United States is now fairly well established, it has by no means reached its ultimate goal. In fact, it is difficult to define this ultimate in any other terms than "No serious accidents." Individual plants which through a decade of activity had apparently gone the limit in preventive effort and had thus accomplished a decrease of 75 percent or 90 percent in accident frequency have found it possible to take a fresh start and by renewed efforts to halve the number of accidents remaining. But the safety idea as it exists to-day in these comparatively few organizations has yet to penetrate into hundreds of thousands of smaller industrial concerns. Technical research into specific hazards of particular industries and particular processes is in its infancy. To many workmen and to many foremen, accident prevention is still a fad—and will be until they are replaced by a new generation instructed in the true meaning of the safety idea and trained in its daily practice.

If industrial safety meant simply the saving of some 23,000 lives annually and the elimination of a few million non-fatal injuries, the movement would neither have reached its present development nor justify the hopes for the future suggested in the preceding paragraph. Safety in industry actually means far more than this, because it is directly correlated on the one hand with efficiency and economy of production and on the other hand with the establishment and maintenance of proper relations between employers and employees—and these two are probably the most important problems facing any American industry to-day.

The relation of safety to production efficiency may be indicated thus: Suppose a workman is pushing a truck load of material through a shop. Suppose that, as sometimes happens, one piece falls off, and suppose it hits the workman's foot and injures it. We call this an accident, and we know that it causes not only pain to the injured workman, but also a certain economic loss to the employer for medical service and for compensation to the workman. Now, there are many other times—perhaps a hundred or more—when a piece of material falls off the truck but does not happen to fall on the workman's foot. Every time this happens, there is more or less damage to the material or to the floor; the workman must stop and pick up the piece—perhaps he must call some one else to come and help him; other truckers behind him are forced to wait; the machine operator who is to use the material may also be delayed. The foreman or safety inspector who investigates the occasional personal injury may find that it was caused by a hole in the floor, by too restricted a passageway, by poor lighting, by an improperly designed truck, or by any of several other causes. When this defect is remedied, it saves not only the occasional injury but also the much more frequent loss of time. From the economic standpoint, such an injury is chiefly important, not because of its own direct cost, but because it attracts attention to a condition of inefficiency which in the aggregate is even more costly.

These instances lead to a general analysis. What is an accident? One dictionary definition is "anything occurring unexpectedly." In this broad sense, the material sticking in the punch press, the belt breaking, the material falling off the truck, the railroad train jumping the track, is an "accident," whether any person happens to be injured or not. Against this idea, place the idea which is the spirit and aim of all large-scale production—to determine the 'one best way' of doing each thing, and always to do that thing in that one way. Obviously, these two ideas are in direct opposition. All accidents in the broad sense—all things occurring unexpectedly—are hindrances to efficiency, whether any one happens to be injured or not. The occasional accident in which some one is injured therefore has a significance beyond its own cost—it serves as a symptom of many other "accidents" in which no one was injured, but through which time was lost and production curtailed.

There is an equally close correlation between safety and employer-employee relations. Frequent accidents affect the worker's feeling toward the management; they make him less productive in his work and more ready to quit on slight provocation. On the other hand, in a shop or other place of employment where attention is given to accident prevention the feeling of the workman is very different, partly because he appreciates having a safe place in which to work, but still more because of the coöperative methods used in making the place safe.

The recognized basis of industrial safety work is, as already indicated, coöperation between management and men, and herein lies the great contribution of safety to the betterment of industrial relations. When workmen find that it is both possible and profitable to coöperate with the management in preventing accidents, they begin to see that it may be possible and profitable to coöperate in other respects as well. Many industrial executives testify that this is the case. One of them has said: "I believe that accident prevention has offered the first common ground on which employer and employee can meet with mutual understanding of each others' motives, and with profit to both." The workmen's safety committees already referred to were forerunners of the general shop committees and the employee representation plans now in use.

B. The Public Safety Movement

The following figures show the trend of the public accident problem:

	1913	*1923*
Railroad fatalities	12,520	8,078
Street car fatalities	3,080	2,006
Automobile fatalities	3,822	16,452

The railroad and street car fatalities include employees, passengers, trespassers, and others. The automobile fatalities do not include cases of collision between an automobile and a street car or railroad train.

It will be noted that the persistent activity of the railroads and street railway companies has brought about a large reduction in these classes of accidents, despite the increase in operations and in number of men employed, whereas the rapid increase in automobile

accidents has more than made up for these other decreases. Railroad, street railway, and other public utility companies are in fact among the most active of the various classes of employers whose safety work has already been outlined, and their activities have naturally been directed toward the prevention of injuries to passengers and the general public as well as to employees. At present, a rapidly growing number of taxicab and trucking companies and other operators of fleets of vehicles are likewise conducting continuous safety campaigns within their own organizations.

Some of these railroad and public utilities companies made early efforts to appeal to and 'educate' the general public for coöperation in the avoidance of traffic accidents. In 1916 the Brooklyn Rapid Transit System distributed to schools a safety calendar and a safety film; in 1917 the Bureau of Safety in Chicago, serving various public utilities, produced a pamphlet on safety instruction in the schools; at about the same time the Philadelphia Rapid Transit Company and others sent representatives into the schools to talk "safety" to the children. Railroads distributed safety stories, safety pictures, and the like, among both children and adults. As early as 1914 the Wisconsin Industrial Commission and the State Superintendent of Public Instruction of Wisconsin prepared a leaflet on accident prevention for school use in which common hazards and precautions were listed. Safety essay contests were sponsored by motor clubs and others. In 1915 the National Safety Council organized a Public Safety Section, and at the meeting of this Section in 1916 an "Ideal Organization for Public Safety in a Community" was presented which covers in detail most of the public safety activities of the present day. Local chapters of the National Safety Council, for industrial safety work, were already in existence, and it was proposed to develop in each of these a public safety devision.

But the actual activities in this field were fragmentary and rested on no foundation of experience until the National Safety Council in 1918 appropriated $5,000 to finance a six months' experimental public safety campaign in Rochester, New York, under the direction of Mr. Julien H. Harvey. A comprehensive educational campaign was conducted, including a study of accident statistics; a committee organization; public meetings; publicity through newspapers, motion pictures, posters, etc.; work in the schools and

on the playgrounds; study of traffic ordinances and possible improvements; study of improvements in street conditions; a slogan contest; and various miscellaneous activities.

Since 1918 it has been pretty generally agreed by students of the subject that a solution of the public safety problem, at least in a city of 100,000 people or more, demands a well-organized, continuous, comprehensive, community safety campaign. Such campaigns, now conducted on a permanent basis in more than thirty large cities by community safety councils, are based on the participation of all those officially and unofficially concerned and include a comprehensive safety program, covering public, home, and industrial hazards. A variety of educational methods is used, both for teaching personal carefulness to every man, woman, and child in the community and for mobilizing public support in favor of needed street improvements, legislation, and law enforcement on the part of the constituted authorities. These local organizations are financed by local subscriptions and are chartered and assisted by the National Safety Council. Statistics show that these local efforts, where properly organized and vigorously prosecuted, have materially reduced the accident record.

Interest in public safety work, as has already been indicated, has been very greatly stimulated by the rapid increase in automobile registration and automobile accidents. Insurance carriers writing liability insurance on trucks, delivery vehicles, and taxicabs are now promoting safety activity on the part of these employers, the same as in manufacturing establishments. Railroads, electric railways, motor clubs, chambers of commerce, luncheon clubs, womens' organizations, and similar agencies have also been moved to study and action and, both locally and through their respective national associations, have contributed materially to the study of hazards and remedies and to the arousing of public interest. In 1924 Secretary of Commerce Herbert Hoover called all these and other agencies together in a "National Conference on Street and Highway Safety," which has produced valuable reports on various phases of the subject and has been instrumental in bringing about a better coördination of the activities of various groups.

As industrial safety is bound up with production efficiency, so is street and highway safety bound up with the orderly and expe-

ditious movement of traffic. The rapid development of the motor vehicle has made our street and highway systems totally inadequate for the demands put upon them. City planners, highway engineers, and traffic experts are making strenuous efforts to develop plans for meeting this situation and to put these plans into effect, including both the provision of more adequate street and highway systems and the proper control of traffic upon them.

But the prevention of traffic accidents requires more than the improvement of traffic facilities: it requires as well a changed attitude on the part of many drivers and many pedestrians. This will be further discussed in the next chapter.

There are other public accident hazards besides those of traffic. Drowning takes more than 6,000 lives every year—some in the homes and some in industries, but mostly in public places. Fires, electric shocks, falls, and other causes swell the total. Fatalities from drowning have been considerably reduced in the last decade, largely through the activities of the American Red Cross, Boy Scouts, Y.M.C.A., and other agencies, which have taught both swimming and life saving. Drowning, as well as the other causes referred to, are dealt with by appropriate methods in the community safety activities already outlined.

C. Home Safety

Accidents in the home take about as many lives as does the automobile and nearly as many as are lost in all our industries combined. Such at least is the inference from the meager statistical information available. Non-fatal personal injuries in the home are much more numerous than those on the street and probably at least as numerous as those in industry. But home accidents lack the spectacular aspect of street accidents, and they do not constitute a direct economic charge on a business concern, as do industrial accidents. Therefore home safety has been, generally speaking, an afterthought— a sort of poor relation—of the organized movement for industrial and public safety. Yet home accidents are obviously of economic as well as of humanitarian significance. Of 565 home fatalities recently studied by the Statistical Committee of the National Safety Council, 40 percent concerned

persons between 15 and 54 years of age—nearly the same percentage as was determined for automobile fatalities.

Undoubtedly, a large amount of unobtrusive and unpublished home safety work has been done by social service organizations, such as visiting nurses and relief workers, who reach precisely the classes of homes in which accidents are most prevalent. In the care of young children, precautions for health and precautions for safety merge. For the child of school age and for the adult, avoidance of home accidents requires the same sort of personal carefulness that is necessary on the street or in the factory, and that ought ultimately to be developed by a combination of organized community safety activity and of safety instruction in the elementary schools.

CHAPTER III

REALIZATION OF THE EDUCATIONAL ASPECT OF THE PROBLEM

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A. BY OUTSIDE AGENCIES

In the preceding chapters are several references to the use of educational methods in solving the accident problem. In one sense, the safety movement, like any advance in human relations, is entirely educational, in that an idea is born in the mind of one man or of a few men, who then proceed to convert or 'educate' an ever-growing number of followers, until the idea gains general acceptance. Thus, industrial managers must be 'educated' to a realization of the wastefulness of accidents and the value of preventive work; engineers must be 'educated' to build only safe machines, safe buildings, and safe highways; law makers and law enforcers must be 'educated' to do their part; those responsible for the preparation of teachers must be 'educated' to train school teachers to teach safety to school children. Education in this broad sense includes much that the man in the street would term 'selling.' It is obvious that if every one in the United States were thoroughly 'sold' on safety, any present gaps in technique would be filled in short order, and most accidents would cease almost over night. But it is also true that in a much narrower sense education has come to be recognized as an essential, indeed, as the most important, part of the safety program. By 'education' in this sense is meant the systematic instruction of definite groups of persons. This includes, for example, the instruction of taxicab and truck drivers in the rules and practices of safe driving, in some sort of school conducted for this purpose by, or for, the employing companies. It covers likewise the systematic instruction of the workmen in a fac-

tory in the safe performance of their tasks, either in groups or as they pass through the employment process. It covers the instruction of the general public, as automobile drivers and as pedestrians, in the facts of accident occurrence and causation, the physical conditions of vehicles and roadways, the rules of the road, and the other correct practices which safety and courtesy demand of all users of the highway. And it covers the instruction of children in the schools.

It is generally agreed to-day that accident prevention, whether in the factory, on the street, or in the home, requires a combination of three things: mechanical safeguarding, or a safe environment; supervision, or law enforcement; and education. The last is the most important of the three and furnishes the necessary background for the other two.

This is especially evident in the case of street and highway accidents. The large majority of such accidents are collisions between two moving vehicles or, more commonly, between a moving vehicle and a person on foot. Each of these parties to the accident has a right to the use of the highway, but if they both try to occupy the same point of it at the same instant, a collision, and generally a personal injury, results. A safer environment—meaning better streets and more adequate traffic control systems—will prevent a fraction, but probably only a minor fraction, of these accidents. Law enforcement will prevent others, but the American people have learned by experience that laws are useless unless backed by public opinion. For probably a majority of these accidents the only preventive—and for many others the easiest and cheapest preventive—is the instruction of the users of the highway, motorists and pedestrians, adults and children, in personal caution and in consideration for others. The more of such education we have, and the sooner we have it, the less need there will be for traffic signals and traffic officers at every corner, and the less demand there will be for arbitrary and oppressive legislation. Policemen and laws are at the best a poor substitute for personal carefulness and the Golden Rule.

In industry many hazards can be covered up by mechanical guards or eliminated by engineering improvements. Obviously, such steps must be taken by the employer before any sincere and effective

education of the workmen is possible. However, not more than one-quarter of industrial accidents occur in connection with machine operation, and many of these are not preventable by mechanical safeguards. Most of these accidents arise from such common causes as handling material, careless use of hand tools, slipping, stumbling, and the like, and most of them can be ascribed entirely to the persons involved—the injured man himself and his fellows. The same is true of home accidents.

These facts have come to be recognized by all leaders and students of safety. As set forth in the preceding chapter, educational methods form the core of the safety program in industry and in the communities organized for public and home safety.

What is the aim and the purpose of this education? In all cases it is both to arouse emotional interest and to convey specific information.

It is recognized to-day that one of the outstanding characteristics of the human mind is an obstinate unwillingness to accept unpleasant facts. Perhaps a philosophical analysis would indicate that on the whole this characteristic has made for happiness rather than the reverse, but this is not true in the special case of accidental injuries. If the mind of the average individual were so constituted as to accept the unpleasant facts regarding accidents which are almost daily presented to him, the problem of safety education would be very much simpler, and there might be no problem at all. The first task of safety education is to break through this instinctive resistance and compel recognition of the unpleasant facts that accidents do cause death or serious injury to many thousands daily, and that they do not occur only to the other fellow. It is not intended in this chapter to enter into a discussion of positive versus negative methods of safety education, but it must be pointed out here that accidents themselves *are* essentially tragic and that the only reason for avoiding them is to avoid something extremely unpleasant; a recognition of this fact must be the very basis of safety education. Thus, the first purpose of such education must be to arouse interest on the part of the individual, by a combination of the logical and the emotional appeal, but chiefly by the latter.

Having aroused interest—having convinced the individual that accidents are of vital concern to himself—the remaining task is

to impart information as to the nature of the hazards to which the individual is exposed and how they may be avoided. This obviously requires that the instructor himself must be familiar with these causes and preventives. The safety movement has now progressed far enough to render available a fairly comprehensive and authoritative body of information on the hazards and the preventives that affect various population groups.

To illustrate the specific educational methods which have been developed and which have been found successful in industrial and public safety work the safety programs of a few typical industries will be outlined.

The general organization of one large industrial concern includes a Bureau of Safety, Sanitation, and Welfare, and general committees on safety, sanitation, housing, education, and medical and surgical practice. This work in the individual subsidiary companies is conducted by similar committees. Each company has a Central Safety Committee made up of representatives from its various plants, and in addition each plant has plant workmen's safety committees, consisting of members from the rank and file of the mill, and plant departmental and special committees composed of foremen, master mechanics, and skilled workmen, who study and investigate particular problems relating to the safety of the employees. Through these bureaus and committees there is a constant interchange of information on accidents and accident preventives among all the units of this vast organization, while the headquarters bureau bulletins similar information on accidents occurring and remedies developed in other companies.

Details of organization and activity differ in the various companies and plants. In one typical plant the central safety committee meets weekly and consists of the superintendent of every department or his designated representative, the plant safety engineer, the plant surgeon, and the plant manager as chairman. Regular attendance is compulsory. Each member of the committee is privileged to bring to each meeting two foremen or workmen from his department to see and hear what goes on. The committee carefully reviews not only every accident that has occurred, but, frequently, near-accidents as well. The supply of safety posters available that week is passed around and each department head makes

his selection. In this plant the departmental committees investigate every accident and make a full report and recommendation to prevent its recurrence. In other plants of the same corporation the foremen give their men a five- or ten-minute talk on safety every morning. In other cases safety 'schools' or evening lectures are arranged for the foremen. Bulletin boards carrying safety bulletins and posters are generally used.

One plant of this corporation, after many years of such educational effort and of mechanical improvements, accomplished the remarkable record of operating ninety-five days without a lost-time accident on the part of the more than 3,800 men employed. In this plant 570 men are serving on safety committees and in other similar capacities, and a still larger number of employees have so served in the past. Every morning at ten o'clock the safety supervisor attends the regular meeting of the general superintendent, assistant general superintendent, and superintendents from each department, at which safety as well as other operating questions are discussed and decisions made. Foremen's safety meetings are held at least once a month; accidents of the previous month are discussed in detail, together with accidents at other plants. Near-accidents are also reviewed. Finally, each foreman helds a meeting of his men once a month. Each new employee is given a safety rule book which is printed in fourteen languages; he is also given instruction in the hazards of his particular job; and at the end of two weeks he must pass an oral examination on the safety rules. It was this general atmosphere of safety, and not a spasmodic or spectacular campaign, that produced the remarkable record mentioned—a record which ten years earlier would have been considered absolutely inconceivable. As the result of such activities in the plants of this concern, it can be shown that nearly 40,000 men have been saved from serious injury in the past seventeen years.

Typical of a slightly different practice is the main plant of another smaller concern, where in five years the accident frequency rate declined by more than fifty and the severity rate more than 25 percent. This record is ascribed to "team work." Safety committees were used at the beginning, but not now; dependence is placed instead upon a variety of educational, publicity, and advertising practice, including safety signs and posters of every de-

scription, safety material in the plant publication, an inter-plant contest with the other two units of the company, and most of all, upon personal contact of the safety supervisor, the chief surgeon, the director of labor, and the general manager with the subordinate executives and the workmen. Each foreman and supervisor knows that the plant management is 'sold' on safety and expects him to prevent accidents among his men.

Hundreds of similar examples could be quoted from other industries, large and small.

In many communities the industries have united for intensive safety education work. One of the most valuable activities is the holding of a school or series of evening meetings for safety supervisors, safety committee men, superintendents, foremen, *et al*, at which the various essentials of a safety program are outlined by speakers from other industries and communities. Safety meetings for the foremen of an entire city or area likewise are found popular. Mass meetings of workmen, with safety programs, are especially appreciated by the plants of small or moderate size. Inter-plant visitations by committees of safety men serve to transmit information and experience from one to another.

Turning to the field of public safety, and especially to the prevention of traffic accidents, similar schools or courses of evening meetings have been found highly effective in instructing and training commercial drivers. Among the larger cities, Baltimore and Boston have much better than average records with respect to automobile fatalities, owing largely to a falling off in the fatalities involving motor trucks; in both cities this decrease is ascribed largely to the schools conducted by the Local Safety Council for commercial drivers, together with further educational activity and careful supervision on the part of the companies employing these drivers. A study of the situation in Baltimore disclosed that the general favorable record was due to a combination of more extensive traffic control by the police department, certain street improvements, more playgrounds, school safety work, the commercial vehicle activities already mentioned, and the general program of public education. This last included general publicity on traffic safety; the securing by the Safety Council of suggestions and complaints on specific unsafe conditions, which were then turned over to the police depart-

ment; street bulletin boards carrying safety messages to the public; and the general coördination of activities through the medium of the community safety organization. Space does not permit a detailed recital of similar community activities in other cities.

B. By the Schools

The elements of safety education were in evidence in textbooks used in the elementary schools as early as 1845. The emphasis in these earlier years was very distinctly remedial rather than preventative. A textbook entitled *Anatomy and Physiology Designed for Schools and Families,* by Calvin Cutter, M.D., printed in Boston in 1845, contains the following prefatory statement:

> "To make a knowledge of the structure and function of the different organs *practical* the laws of the several parts, and the conditions on which health and disease depend, have been clearly and succinctly explained. Hence it may be called a treatise on the principles of hygiene and health.
>
> "To render this department more complete an Appendix has been added, in which the appropriate treatment of burns, wounds, dangerous hemorrhage from divided arteries—the management of persons apparently drowning and sick rooms—have been detailed that persons may know what *should be done* and what *should not be done* until a surgeon or physician can be called."

In the Appendix of this work the author asserts that

> ".....to meet these exigencies requires information and premeditation. The boy or girl should be so instructed that he or she can render assistance to persons suffering from accidents, as well as the person of mature years. In most of these everyday occurrences, much pain and even death may be prevented by the prompt and proper assistance of some individual who may be present, before a surgeon or physician is called."

It is important to note that the controlling motive in this early work was remedial. Children were taught first-aid measures.

Coincident with this attention on the remedial side of accidents, the school began to emphasize preventive measures, in so far as they related to the health of the individual. Some attention was given to the prevention of small pox and to the evil effects of tobacco and alcohol.

By 1886 textbook writers were beginning to give attention to preventative measures. In a textbook entitled *How We Live or The Human Body and How We Take Care of It,* by Johonott and Bouton, published in 1886, such questions as the following were included at the end of each chapter: "Why should we not take a pan of live coals into the bed room which we occupy? How should the cellar of a house be kept? What shall we do when we detect carbonic-acid gas? What harm comes from breathing air filled with waste matter? Why is outdoor air better to breathe than indoor?"

It should not be understood that attention to remedies had disappeared from the classroom. Blaisdell, in his textbook entitled *Our Bodies and How We Live,* published in 1892, offers remedies for the following: accidents and emergencies, fainting, epileptic fits, convulsions of children, asphyxia or suffocation, apparent drowning, sun stroke or heat stroke, etc.; and suggestions on how to carry an injured person; poisons and their antidotes; foreign bodies in the throat, ear, and eye.

During the period ending in 1912 or 1913, accident prevention was gradually gaining in importance. There are numerous evidences of this tendency found in courses of study, as well as textbooks. The following are typical:

The "Course of Study and Syllabus in Physiology and Hygiene for the New Haven Public Schools 1906" states such precautions as: "Keep poisons from children" and "Suffocation—Cause and Relief." The "Course of Study of the Dayton Public Schools," published in 1910, includes the dangers of fire as a topic to be treated in each of the eight grades. As early as this, other courses of study emphasized a consideration of the various governmental boards and departments having to do with protection against accident and disease.

In 1913 a distinct emphasis was placed upon accident prevention. This was coincident with the increased attention that industries were giving to the reduction of accidents. Under the direction of the National Safety Council a supplementary reader entitled *Sure Pop and the Safety Scouts* was prepared. Later other supplementary readers dealing with safety education appeared. Accident prevention continued to receive the major emphasis. Grad-

ually directions for safety appeared in courses of study and in textbooks. In 1918 Dr. E. George Payne, President of Harris Teachers College, St. Louis, at the suggestion of the National Safety Council, undertook some very definite experiments with the teaching of safety in the public schools of that city. Since that time other cities and states have incorporated safety education as a regular part of their school program. The history of the development of safety education in typical communities is given in a later chapter.

The movement which began with accident prevention, of which "safety first" is typical, has gradually extended its scope until now it is incorporated in many courses of study and textbooks as an important aspect of citizenship and a very essential feature of conservation.

CHAPTER IV

THE SUBJECT MATTER OF SAFETY EDUCATION

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The term "subject matter" is used in the sense of "content"—that is, the information regarding accidents and their prevention which the teacher must have as a background for her safety instruction. She must know the causes and frequency of common accidents, the means of preventing them, and the types of accidents with which children in the various age groups are most likely to meet.

On the basis of these facts, certain hazards will be stressed in each grade. At the same time, local occurrences, such as a fire or an accident to a child in the school, will give a natural opportunity for the teacher to bring out in clear relief the cause, effect, and prevention of the particular type of accident involved. Also, each month, with its changing weather conditions, sports and games of the season, special holiday celebrations, clean-up weeks, campaigns for thrift, better babies, fire prevention, public safety, and so on, offers many opportunities for safety lessons based on the immediate experience of the children and helps also to place the safety movement in its true relationship to other movements for social and civic betterment.

The statistics on accident fatalities given herewith will merely show the extent of the national problem. It is desirable for the teacher to base most of her safety instruction, however, on local conditions, as this brings the subject home to the child in a way that nation-wide generalizations do not. Also, communities often differ widely as to the chief causes of accidents occurring locally. It may be, for instance, that in one city a railroad running through the main street of the town on the same level is the chief hazard; or in another community, situated on a lake or river, water hazards may need most emphasis; or in still another, traffic conditions may be the most formidable problem. Local accident statistics may be

obtained from the police or the health department or the coroner's office, and school authorities should see that this information is made available to all teachers.

FATAL ACCIDENTS IN THE UNITED STATES
(Estimated Figures for 1924 compared with 1911)

Cause of Accidental Death	Deaths in	
	1924	1911
All Fatal Accidents	84,844	79,255
Accidental burns	7,621	7,214
Accidental drownings	7,621	8,806
Accidental falls	13,337	14,042
Traumatism by machines	2,017	1,967
Railroad accidents	6,726	12,197
Street car accidents	2,129	2,998
Automobile accidents	17,400	2,061

NOTE: It is significant that, while drownings have decreased in the past 13 years by 1,200, probably because of the emphasis laid upon learning to swim by young people's organizations, such as the scouts, Y.M.C.A., etc., and while railroad accidents have been cut almost in half, the number of automobile accidents was eight times as great in 1924 as in 1911. In this table fatalities from collisions between automobiles and heavier vehicles are classified under the heavier vehicle. These are estimated at 2,600, making the total number of automobile accidents for last year 20,000.

FATAL ACCIDENTS TO CHILDREN IN THE UNITED STATES FOR 1923

Type of Accident	Age Group			
	All Ages	Under 5 years	5 and under 10 years	10 and under 15 years
All Accidents	84,436	9,547	5,488	4,137
Falls	14,165	609	283	241
Automobile accidents	16,378*	1,065	2,211	1,015
Burns	7,414	3,025	860	252
Railroad accidents	8,078	145	202	258
Drownings	6,861	631	624	871
Asphyxiation by gas and mechanical suffocation	3,984	964	48	68
Accidental death by firearms	2,877	127	233	489

* Does not include collisions with heavier vehicles.

A. How to Prevent Automobile Accidents

1. When You Are Walking

Look Both Ways Before You Cross the Street. See that the way is clear before you cross the street. In crossing, first "look left," cross to the center of the road and then look to the right.

Watch also for cars coming around the corner. Decide when it is safe to cross and go ahead without hesitation.

Never run across the street. You can see better and stop more quickly when walking.

If you get caught in the traffic, stand perfectly still in the center of the road and let the cars go by until you have a chance to go on. Do not dodge back and forth; drivers will not know where to steer if you do not stand still.

Obey Traffic Signals. Obey the traffic officer at all times. He is there to make the street safe and to keep traffic going smoothly.

If a crossing has no traffic officer, watch the signal lights. When there is no signal, "be your own semaphore." If cars are coming, say to yourself, "Stop." If the way is clear, say to yourself, "Go."

Remember that people are apt to follow blindly where another leads, so don't lead others into danger by crossing at the wrong time.

Cross at Street Crossings Only. Drivers expect people to cross at the crossing and look for them there. That is why it is dangerous to cross in the middle of the block, where drivers do not expect you.

Never go from corner to corner diagonally because you are sure to get in the way of traffic on one side or the other if you do this. A blackboard sketch will make this clear. Cross *with* the stream of traffic—not *against* it.

Stepping into the street from behind a parked car or moving vehicle is one of the most frequent causes of automobile accidents, because when you do this, you can not see what is coming, nor can the driver of an approaching car see you. A sand-table model will illustrate the danger of this practice.

Cross at the crossing when the way is clear.

Hold Your Umbrella High. You can not see when you hold your umbrella down over your face. Hold it up high. It is better to get a little wet than to get run over. Also, you are apt to injure other people's eyes when you hold your umbrella down low with the point forward.

2. When You Are Playing

Play in a Suitable Place. Streets are for people who ride; sidewalks are for people who walk; playgrounds, parks, yards,

vacant lots or streets closed to traffic are for people who play. If there is no such place near your home, choose a quiet street and keep on the side-walk as far as possible. But remember this—it won't hurt you to walk a few blocks to the nearest playground and you can have a much better time there than you can on the street.

Look Out for Traffic When Chasing Your Ball, Your Hat or Your Playmate. If your ball rolls into the street, if your hat blows off, or if the playmate whom you are chasing starts across the road, look out for automobiles before you follow. It is hard to remember to do this, but it is harder still to get run over.

Use Your Own Legs. Don't hop trucks, street-cars or other vehicles in city streets. You may be able to jump and hold on safely, but when it comes to dropping off, you are likely to find yourself in the path of an approaching automobile which can not stop quickly enough to avoid you. And even if *you* can do it safely, think a moment about the little children who will want to copy you—and then decide not to do it.

If you hold on to an automobile, street-car or other vehicle when you are riding a bicycle or are on roller-skates, other cars may unintentionally crush against you. Also, your speed is usually greater when a car is pulling you than when you are using your own legs, so that you cannot control yourself so easily. And is not the driver of the car entitled to some consideration? It is not his fault if you get hurt when holding on to his car, but he will have an unhappy feeling of responsibility. It is not fair to hold on to a car just because you know he can not see you.

Use Hand Signals When Riding a Bicycle. If you are riding a bicycle in the street, signal when you want to stop or turn a corner just as every automobile driver does.

Keep Off the Handle-Bars of a Bicycle. If you live in the city, don't ride on the handle-bars of a bicycle and don't let other people ride on yours. The person who is on the handle-bars hides what is coming from the person on the seat who has to steer. Do this only on unfrequented roads in the country, if at all.

Use Your Scooter, Roller-Skates or Express Wagon on the Side-walk. The danger of being struck by passing vehicles is very great if you use these things in the street. It is so easy to forget to look

out for automobiles. Stay on the sidewalk or find a really quiet street or playground.

Hook Rides with Your Sled Only in the Country. This is a dangerous sport for the city for the same reason that hopping trucks is dangerous. Do it only in the country and off the main highways. Get your father or some friend to let you attach your sled to his car.

See that your sled rope is strong and smooth, so that it will slide off easily when you want to stop, and long enough to keep you from bumping when the car stops. Do not tie the rope, but hold it in your hand so you can let go quickly if you need to.

Choose a Good Place to Coast. A good place to coast is a slope away from any road or car track. If you must coast on a roadway, take turns with the other coasters in guarding each street intersection to warn of approaching cars.

Never coast where your sled will have to cross a railroad or street-car track.

3. When You Are Driving a Car

Drive Carefully at All Times. Reckless driving is not a demonstration of skill.

The best drivers are especially careful at dusk, when there is neither enough daylight nor artificial light to make objects easily distinguishable.

Slow up for all turns in the road. Blind corners are dangerous. When it is impossible to see what is coming from around the corner, be prepared to stop. Sound horn a short distance from the corner, as you approach.

When chains are necessary, put them on both rear wheels. The use of only one chain may cause an accident. Chains an all four wheels help the steering of the car.

There are ruts at the bottom of almost every hill. If you hit these ruts at too high a speed, you may lose control of your car.

Drive slowly at bridges or culverts.

When you try to pass another vehicle going in your direction, start turning out to the left at least 75 feet to the rear. If you get up too close, you can not see what is ahead and you may turn directly in front of another car coming toward you. When you

have passed a car, do not cut back into the road nor slow down too soon.

Always be careful when backing. Sound your horn three times, signal other cars, and look back (not ahead) to see where you are going. Mirrors are valuable at all times.

Keep Your Car in Order. Brakes should be tested every day. Never drive a car when the brakes are not working properly.

The steering mechanism should be tested frequently, and adjusted when necessary by an expert mechanic.

Proper lubrication is essential.

Keep your windshields clean.

Keep Your Attention on Driving. Do not try to carry on too much conversation when you are driving. Safe driving needs your eyes, both hands, and your undivided attention.

Know Your State Traffic Laws and Local Ordinances. A copy of the state laws may be secured by applying to the secretary of state at the state capitol. Local ordinances may be obtained from the police department.

Learn and Observe the Rules of the Road: Be Courteous. Pass to the right of vehicles coming from an opposite direction. Slow moving vehicles should keep to the extreme right of the road.

Sound your horn and pass to the *left* of vehicles going in your direction.

Pass to the *right* of street cars and vehicles traveling in the street car tracks.

Don't try to pass another vehicle going in your direction at intersections, on curves or on the brow of a hill.

At street intersections give the right of way to the car approaching from your right. Don't presume too much even when you have the right of way; perhaps the other person doesn't know it.

When stopping or parking a car, see that the right side is toward the curb. The wheels should be cramped to the right when parking on a down grade, so that the car can not move accidentally. Set the emergency brake and put the car in gear before leaving it if there is any doubt about the emergency brake holding.

Do not stop your car within 15 feet of a fire hydrant.

Always signal when you expect to stop or turn.

Headlights should be adjusted so the beam of light will strike the roadway ahead and not shine in the eyes of approaching drivers. If your lights are not so adjusted, dim them when approaching another car.

Look Out for Railroad Crossings. All railroad crossings are dangerous, whether guarded or not; crossing bells are sometimes out of order, or watchmen or gate operators may be off duty.

Be especially careful at crossing where there is more than one track. Do not cross directly behind a train which has just gone by. Another train may be coming in the opposite direction on another track.

Careful drivers always slow down and shift into intermediate or low gear before driving over a railroad crossing. This practice practically eliminates the danger of your motor stalling on the track.

B. How to Prevent Street Car Accidents

Face Front When Getting Off a Street Car. Face front and hold the handrail with your left hand as you step down. If the car should start suddenly, you will be stepping in the same direction and will be much less likely to lose your balance than if you were facing the other way.

Some people try to see what is coming behind them as they step down. Glance back before you get off and as you walk toward the curb, but not as you alight from the car.

Go Directly to the Curb When You Get Off a Street Car. In most cities vehicles are not allowed to pass a street car which is discharging passengers. It is therefore best to go straight to the curb and wait for the signal, rather than to try to cross in front of the street car which you have just left.

When getting off at a safety zone, go to the front end of the zone and follow the cross walk when the way is clear.

Keep Packages Out of the Aisles. You know how unpleasant it is to trip over things, especially on a moving car. Keep suitcases, bags, packages, etc., where they are out of the way of people's feet.

C. How to Prevent Railroad Accidents

Do Not Use the Railroad Track as a Path. Many people use railroad tracks as a pathway or walk along them to pick up pieces of coal which have fallen from cars and engines; they also walk across trestles as a short cut or merely to 'show off.' This is trespassing as well as running a grave risk. People have often been killed by stepping in front of one train while trying to avoid another.

Keep away from railroad tracks and trestles. You do not know when trains will come; you may not hear the approach of a train until too late, and on a trestle or high embankment, there may be no room to step aside.

Do Not Play Around Railroad Yards. You do not know when or where the cars will move; the train-hands often can not see you; many times people have been caught and crushed by a car which they did not think was going to move at all. When you trespass on railroad property, you are disobeying the rules of the company; you are interfering with people who are doing responsible, important work, and you are taking a foolish, unnecessary risk.

Stop at Grade Crossings. You should "Stop, Look, and Listen" at grade crossings, even if you are on foot. Curves often hide the train until it is right upon you, and the wind or some other sound may prevent you from hearing it.

D. How to Prevent Falls

Have "a Place for Everything and Everything in its Place." Put playthings, tools, clothing, etc., away when you have finished using them, keep stairways and sidewalks clear, rugs smooth, and furniture in its accustomed place. Untidy people who leave their things around for other people to trip over, who muss up the rugs or push the furniture out of place where others may stumble over it unexpectedly in the dark, often cause serious falls.

Watch for Holes in the Rugs and Carpets and for Defective Treads on the Stairs. Tack down patches smoothly over holes, so that people will not catch their feet and fall.

Be sure that stairways are kept in good condition, especially when they are carpeted and the strips of carpet held down by

brass rods. Do not use brass strips on the edge of the steps. Remember also that high heels are apt to catch on the treads of a staircase. There are many reasons for wearing sensible shoes and this is one of them.

Don't Lean Out of Windows, or Over the Banisters, Porch, or Fire Escape. This is a dangerous and silly habit, even if the railings are secure. If you have a baby in the family, suggest that the windows be screened or barred and that the stairs have a safety gate.

Choose a Safe Substitute for a Stepladder. If you have no stepladder and must stand on a chair, take a straight strong one with a solid seat, and not the piano stool or a rocking-chair.

In using a ladder, don't lean to the side. A stepladder should have all four feet on the ground and the braces set. Never use a ladder with any part in need of repair.

Watch for Slippery Places Indoors and Out. If grease has been spilled on the floor, wipe it up with hot water and soap or soda.

Be extra careful on rainy days when your shoes have rubber heels. They are very apt to slip.

Sprinkle ashes, salt, or sand on icy spots.

Put fruit peelings in rubbish cans. If others have been careless and untidy enough to leave fruit peelings about, pick them up and put them into a rubbish can or kick them to the side of the road where they are least likely to do damage.

Look out for small rugs on polished floors, especially when they are placed at the foot of a stairway.

Don't Turn Your Ankle by Stepping on Small Objects in Your Path. Bits of wood, gravel, small stones, marbles, jackstones, etc., have often been the cause of sprained ankles or bad falls. Look out for them and clear them away when you find them.

Wait Until the Car Stops Before Getting Off or On. Show your agility in the gymnasium and not by jumping off or on a moving car or other vehicle. Almost any other form of athletics is more worth while.

Walk Carefully Near Excavations and Elevator Shafts. If you must see what is at the bottom of an excavation, step carefully, and don't go too near the edge, because it is apt to be crumbling

earth. Suggest that guard rails be put around any dangerous excavation in your neighborhood.

Never go near open elevator shafts and avoid walking over the tops of elevators which come up through the pavement.

E. Causes of Conflagrations, Burns, and Scalds and Their Prevention

Careless Use of Matches. Use only "strike on the box" safety matches.

Keep matches always in a safe container. Earthenware or tin is satisfactory. Keep them out of reach of little children, away from the heat of stoves or pipes, and where rats and mice cannot get at them.

Put burned matches in containers of china, tin, or any non-inflammable material. Never throw them in the waste basket, even if you think that they are out. If you are out of doors, step on them.

Pick up all matches that are spilled.

Never carry loose matches in your pocket. A good Christmas present for your father or older brother is a metal match safe.

Strike matches away from you and close the box before striking. After striking, break the match in two.

Never take a lighted match into a closet to look for something. Use an electric flashlight or candle lantern.

Careless Use of Candles, Lamps, Torches, Lanterns, Gas Fixtures, etc. Be sure that your window curtains cannot blow into an open flame.

If you use candles, set them in heavy candlesticks so that they cannot overturn, and be sure that they fit tight. Never take a lighted candle into a closet, for something may touch the flame. If you go into the attic, cellar, closet or barn, a lantern is much safer. An electric flashlight is safest of all.

If you use lamps, fill them only by day and away from any flame. Wipe off all oil from the surface with a soft absorbent cloth; set them well toward the center of the table, but not on a table cover which some one may pull down, and put them out before you leave the house or go to bed. Avoid carrying lighted

lamps. Do not go to sleep with a lighted lamp at the head of your bed.

If you use gas, have the flame protected by proper globes and keep the tips clean and in place. A gas mantle is safer and gives better light, but you must see that pieces of the burning mantle cannot fall out. Do not use the inverted mantle, where the globe is open at the bottom.

Do not look for a leak in the gas pipe with a match, candle or torch. Use an electric flash light or send for the plumber.

Never take anything with an open flame into a barn or other place where inflammable materials are stored. Only the safest kind of "safety lanterns" or an electric flash light should be used.

Improper Use of Stoves and Open Fires. See that you have dry kindling before trying to start a fire. Never use kerosene.

Fill kerosene or gasoline stoves only by daylight and keep them scrupulously clean. See that the floor underneath is protected, so that possible drippings cannot soak into the wood, and repair all leaks promptly.

Regulate a coal, wood, or kerosene stove or furnace so that it does not get red hot. See that it has good clearance from walls or floor. Protect walls and floor near it with sheets of zinc or asbestos, but leave an air space between the wall and the protection.

Have your gas stove or heater connected with sections of pipe, if possible, otherwise with flexible metal tubing. Never use cheap or old rubber hose, and arrange your tubing so it won't be pulled off. Stand the stove or heater on a piece of zinc or asbestos. In lighting the oven of a gas stove, first open the oven door, as the oven may be filled with gas. If gas jets 'pop,' they should be adjusted.

An open fire is a delight, but must be carefully guarded. Do not put much excelsior on the fire, and do not burn dry Christmas greens on an open fire, as they go up in a sheet of flame. Never put loose pieces of paper on the fire, because flakes of burning paper are easily blown up the chimney and may set fire to the roof or trees near by. If you put a roll of paper on the fire, weight it down with a piece of wood, as it is apt to unroll while burning. Little children should not play near an unscreened fireplace. Always keep an open fire screened with a proper spark screen.

A bonfire is not a plaything for young children. Only children old enough to appreciate the danger and guard against it should have anything to do with bonfires. Little girls should always keep at a safe distance, because their skirts may blow against the flame and cotton skirts ignite easily. A bonfire should never be started on a windy day or near trees, tree stumps, shrubs, fences, buildings or dry grass. Bonfires started by children in city streets are exceedingly dangerous and cause thousands of fires yearly. Learn the ordinances of your city regarding bonfires. Have an incinerator for burning waste material. Don't run around with a burning stick or torch.

If you are a good camper, you will know how to build, care for, and put out your fire. You will never build one near the trunk of a tree, a log or where overhanging branches may catch fire from it. You will choose an open space and, if possible, have a rock foundation. You will take care not to have too big a fire, as this is not only dangerous but also uncomfortable for cooking. You will see that it is sheltered from the wind, so that sparks cannot be blown around, and you will never leave a fire until you know that it is entirely out. You will soak the ground thoroughly with water where the fire has been, because in certain kinds of soil, fire can live and travel underground for days, and may burst into flame at some distance from where the original fire was. In this way you will help to save our forests, so many acres of which have been burned down through sheer carelessness on the part of campers.

Careless Disposal of Ashes, Oily Rags, and Waste. The place for ashes is in a metal ash can, coal scuttle or covered iron bucket, never in a wooden box or barrel, no matter how cheap and easy it is to dispose of them in that way.

Oily rags will sometimes take fire in a few hours by spontaneous combustion. If you must keep rags after polishing the floor, or furniture or oiling machinery, put them in a covered metal can or burn them. Many kinds of oily waste material will take fire in this way. Keep oily mops also in a covered metal can.

Burn all rubbish in covered wire baskets or incinerators or dispose of it in some other safe way. Never allow rubbish to accumulate in the attic, cellar, closets or anywhere else. Remember that "Fire finds filth." In burning rubbish in the furnace, do not fill

the fire box too full, or it will 'back-fire' when you open the furnace door next time.

Careless Use of Gas and Electric Appliances. Escaping gas is poisonous to breathe and will explode when it comes in contact with a flame. All pipes and connections should be tested frequently. Children should never meddle with the cocks on the gas range or burner. If you smell escaping gas, first open the windows and then tell some older person about it. Do not stay in the room where gas is escaping.

Electric irons save much time and trouble, but they must be carefully used. Always set the iron on a special holder made for the purpose and never on the ironing board, chair, etc. Never leave any electric appliance connected. The only safe way is to disconnect the plug. Thousands of fires are caused every year by leaving flatirons, toasters, chafing dishes, curling irons and other appliances with the current on. It is easy to think: "I have turned it off." Take the plug out, and you will know that it is safe.

If you find a person overcome by gas or electric shock, apply the Prone Pressure method of resuscitation (see Section on First Aid).

Improper Use and Care of Stove Polishes, Cleaning Fluids, Kerosene, Gasoline, and Alcohol. Use only noninflammable stove polishes; there are a number of these, so that there is no reason for using dangerous brands.

Cleaning fluids containing gasoline or benzine are highly dangerous. If used at all, they should be kept in tightly closed metal containers and only used outdoors. The gas formed by the evaporation of the liquid will often travel many yards and ignite when coming in contact with a flame. Also, the friction used in cleaning gloves or other articles often generates a spark and causes an explosion. Do not put gloves on your hands when cleaning them. You cannot be too careful in using these dangerous fluids.

Kerosene and gasoline should be kept in metal containers. A gasoline can should be painted red and have the word "gasoline" painted in conspicuous letters. To leave gasoline and kerosene in the cellar anywhere near the furnace is inexcusable carelessness.

Never pour gasoline or kerosene into the sink or down a drain.

Do not fill chafing dishes, toy engines, etc., with alcohol while they are hot.

Bad Habits of Smokers. Throwing away lighted ends of cigars or cigarettes is the cause of thousands of fires. If you see a burning end, step on it. If any member of your family smokes, see that there are plenty of ash trays available. To throw ashes on the floor or in the wastebasket is a most dangerous, as well as slovenly practice.

People should never smoke in a garage, or near an automobile which is being filled with gasoline, or where any inflammable material such as hay, excelsior, etc., is stored. A tiny spark may cause untold loss and suffering.

Scalds and Burns. Many little children are painfully or fatally burned each year by scalding water, tea, coffee, and other hot liquids. Keep your little brothers and sisters away from the stove, and see that all pots, pans, and kettles stand so that they cannot easily be knocked over and are out of reach of the little ones. A bright handle appearing over the edge of a stove or table is a tempting plaything for a baby. Remember that a baby's skin is very sensitive, and that a liquid which might be only uncomfortably hot to an older person may burn a baby very badly.

Never let a tub of scalding water stand on the floor where anyone can stumble and fall into it.

Remember that serious burns may come from steam. It looks harmless and pretty, but it is very treacherous. In handling a kettle or pan of boiling water, protect your hand and arm and do not let the steam come near your face.

A very slight burn, even sunburn, upon one-third of the skin area may be fatal.

Other Things to Remember about Fire. Celluloid is very inflammable. Keep your celluloid toys, toilet articles, combs, and spectacles with celluloid rims away from flames.

Clothing, towels, etc., hung too near the fire, over a gas heater or against an electric light bulb, may catch fire.

Do not use inflammable shades for your electric lights, unless they are held several inches away from the glass. Never use inflammable shades for candles, unless the shades have a mica lining.

In decorating your Christmas tree, use only electric lights. Candles are prettier than electric lights, of course, but it is dangerous to use them, and in many places there is a city ordinance against their use.

There are many ways of celebrating the Fourth of July which will be as much fun as firecrackers. Try an all-day hike, a camping party, an athletic meet or an excursion to some interesting place. Never use cap pistols. They cause many cases of lockjaw.

Learn where your nearest fire-alarm box is, what its number is, and how to turn in an alarm. Report a fire at once. Any connected telephone should be used to call the fire department and ask for help. Just tell the operator.

Know where the fire escapes in your house are, and see that all exits and escapes are kept clear. Plants, bedding, milk bottles, and all other objects on a fire-escape may prevent its use when most needed, and it is a violation of the law in all cities to use the fire escape in this way.

Fire extinguishers are a valuable protection. Learn how to use them.

If you discover a fire in a building, close all doors after you as you go out, so that the draft will not cause the fire to spread. If the chimney catches fire, hold a rug over the fireplace to cut off the air, and keep the rug wet. Remember that a clean flue does not catch fire. Have all flues inspected and cleaned once a year.

To extinguish a small fire, beat it out with a broom, pour water on it or smother it with a blanket or rug. Fire cannot burn without air. Never throw water on burning fat or oil, as this only spreads the flames. Use sand, ashes, salt or flour.

If your own clothing catches fire, lie down and roll. Never run for help, as this only fans the flames. If someone else's clothing catches fire, get him down on the floor, wrap him tightly in a rug, coat or blanket, beginning at the head to keep the flames away from the face, and beat out the flames or roll him on the floor.

To leave a burning building, use the fire escapes, if there is no other way. If the halls are full of smoke, wind a wet towel or cloth around your head and over your mouth and nose to protect you from the smoke, and stoop low or crawl on your hands and knees, as smoke is thinnest near the floor. Never jump from a window or roof. The fire-department will get you out.

Remember that in spite of the tremendous fire loss in the United States every year, comparatively few persons lose their loves in burning buildings. 'Keep your head' for your own sake and for the sake of others whom you may be able to help.

F. How to Prevent Accidental Drownings

Learn to Swim and to Dive and Know the Conditions of Your Swimming Place. Keep out of water that is over your head until you can swim. Learn to swim as early as possible for fun, for health, and for safety.

No matter how skillful a diver you are, make sure before you dive that the water is deep enough and that there are no rocks to strike against. Learn to dive with your eyes open.

Find out about a new bathing place before you go in. If you are at the seashore, ask about tides and undertow and whether the shore slopes down gradually or falls off abruptly. If you are by a lake or river, ask about the bottom and whether there are unexpected cold streaks which may cause cramps, also how swift the current is. When bathing in heavy surf, look out for currents running out, and keep away from piers and bulkheads.

Sometimes old mines or quarries have filled up with water and made ponds. These are apt to be dangerous, as they go sheer down at the side with no preliminary slope. Remember that in taking risks you endanger not only your own life, but the life of the person as well who goes to rescue you when you get into difficulties. Many brave persons have lost their lives in trying to rescue others.

Learn to swim well first and then practice to qualify as a life saver.

Wait at least an hour after eating before you go into the water.

First Learn to Behave Properly in a Boat and Then to Manage One. In getting into a rowboat, canoe or small motorboat, step in the center, and if necessary, steady yourself with a hand on each side. Sit in the middle of the seat. Never change seats except at the dock or the shore. The important thing about any kind of a small boat is to keep it balanced properly.

Learn to row and paddle as early as you can, and learn the ways of the boat you are going to use.

Never 'fool' in a boat, and refuse to go out with anyone who does. There is no excuse for fooling. It only shows how ignorant a person is about boats, and it is the cause of many wholly unnecessary accidents.

If you cannot swim, do not go out in a canoe, except with an older person who is a strong swimmer; do not take persons out with you who cannot swim. It is a responsibility you have no right to assume.

Learn ways of righting an overturned boat, methods of life-saving and resuscitation (see Appendix for the latter). The local safety council, the American Red Cross, or the Boy or Girl Scouts will help you. If you ever have to be rescued yourself, do not grasp at the person who is trying to save you. Do what he tells you to do, and do not hinder his efforts by clinging to his arms or around his neck.

Don't Skate on Thin Ice. Be sure that the ice is firm before you skate on it, especially on a river where the current keeps the ice from forming as quickly as it forms on a lake or pond. If a person breaks through the ice and falls in, crawl toward him on your hands and knees, pushing toward him a plank, a coat, or something else that he can hold on to, and pull him out. Wrap something around him, and make him exercise to keep warm until you can get him to a house.

See that holes or dangerous places in the ice are marked with some sort of a danger signal.

G. Miscellaneous Accidents

Firearms. Firearms are not toys. Children have no reason to handle them. There is no safe way for a child to find out whether they are loaded or not. The best policy is to consider all firearms as loaded and to leave strictly alone. When there are little children in the house, firearms should be locked up, so that they cannot possibly get at them.

Be careful about walking in the woods and fields during the hunting season. Hunters may not see you, even if they are trying to be careful. It is a good plan to wear a bright colored cap or hat, so that they can see you more easily.

Throwing Stones, Using Pea-Shooters, Bean-Blowers, etc. There is one thing to remember always when you feel like throwing stones, shooting pebbles, etc., and that is that although a stone may be small, it can inflict a severe injury on another person's eye. Nothing you can do can give the power of seeing back to one who has lost it.

If you want to throw something, get a friend and a ball and 'pass.'

Poisonings. People are often poisoned by food. Avoid all spoiled meat, overripe fruit and vegetables, and spoiled canned goods. If the can bulges, the contents are spoiled. Remove the contents from an opened can. Wash or peel all uncooked fruit and vegetables.

Poisonous substances are often used in small quantities as medicines or disinfectants. Keep all bottles or boxes containing poison in a locked cupboard. See that the poison label is on each one, and stick pins in the cork or cover. Be sure that you have the correct label on each container and do not change the contents of a box or bottle without changing the label as well. Never take medicine in the dark or without looking to see just what you are taking and that you take the proper dose. Never taste the contents of an unlabelled bottle or box.

Learn all you can about wild berries and mushrooms, but do not try to find out what they are by tasting them. Always know what you are putting in your mouth.

Learn to recognize poison ivy, poison oak, poison sumach, and other plants which cause painful eruptions. If you are susceptible to any of them, learn where it grows, and keep away from those places, or wear heavy woolen stockings and gloves. Do not touch any part of your body, especially not your eyes, with your hands if they are infected.

Some persons do not know that holly is very poisonous if you get a tiny bit of thorn in your hand. Serious cases of blood poisoning have resulted from this. Handle holly only with gloves. Find out what other plants sometimes poison people.

Cuts and Scratches. Disinfect all cuts and scratches, no matter how slight.

Pin pricks often cause blood poisoning. See that there are no pins in your clothing before it goes to the wash.

Needles are made of brittle steel and break easily. They have no heads and therefore penetrate the skin easily. It is sometimes very difficult to get a piece of a broken needle out, if it has gone under the skin. Pick up all needles and put them away.

Nails and tacks are particularly dangerous, because a wound received from them may cause lockjaw. Pick up all loose nails and tacks, draw out or bend over projecting nails or remove boards and boxes with projecting nails where they can do no harm.

Fishhooks make bad wounds, because the little barbs prevent the hooks from being drawn out easily. If you get a fishhook in your hand, it may have to be cut out. Handle them carefully and keep them stuck in a cork.

Broken glass has very sharp edges and therefore must be handled carefully. Sweep up broken glass immediately, making sure that you have found every particle; put it in a box or wrap it in several thicknesses of heavy paper and label it "Broken Glass." In this way you will protect the man who carries it away with the other rubbish. Dispose of safety razor blades in the same way or put them in the furnace.

A boy who deliberately or carelessly breaks a street lamp is doing a really mean and dangerous thing. The broken glass cuts people's shoes and sometimes their feet; it is a source of danger to animals, and it cuts automobile tires. It also costs the city a large amount to repair the damage done by mischievous children and careless automobile drivers.

Tin cans are unsightly as well as dangerous. Put them in the rubbish can or bury them deep in the ground. Never let pieces of tin lie around the house or yard. If they are to be used for some purpose, put them away safely until it is time to use them.

Knives and scissors are very useful tools, but they are not playthings. If you carry a penknife or a jackknife in your pocket, be sure that it is closed. Always carry knives, forks, scissors, pens, and other pointed objects with their points down, so that if you should trip and fall, the blunt end will be uppermost. Keep sharp or pointed tools out of the way of little children. Never put sharp pointed scissors in your pocket.

Pitchforks hidden in the hay or left with the prongs up are exceedingly dangerous. Leave pitchforks with prongs down and so placed that people will not stumble over them.

Falling Objects. Keep milk bottles, flowerpots, and other objects off the window sill. It is an inexcusable practice to put articles on the window sill where they may be knocked or blown off. It seems unnecessary to state that nothing should ever be thrown out of a window where it might hit a passer-by.

Never prop the window open with a heavy object. If the cord is broken or other mechanism out of order, have it remedied at once.

If you have occasion to mount a ladder or scaffolding with a hammer, bucket of water, paint pot, etc., use every precaution and warn people away from the foot of the ladder.

Buildings under construction are dangerous neighbors, because of the likelihood of falling bricks, boards, and other material. Keep away from them unless you have definite business there.

Farm Machinery and Tools. Carelessness in operating farm machinery causes many accidents. Loose or ragged clothing caught in moving aprons or gears many bring a person into contact with the sharp knives of a threshing machine or ensilage cutter. All farm machinery should be thoroughly understood before operating and carefully handled. Small children should not be allowed to play near machines.

Tools, such as axes, saws, hatchets, chisels, etc., should be kept in a safe place when not in use and should be handled properly. There is a right and a wrong way to use any tool.

Injuries from Animals. Let strange animals alone. If you want to make friends with a dog, speak to him quietly from a distance. If he seems friendly, call him to you or go slowly up and let him 'get your scent' before you touch him. Never frighten any animal or rush at him suddenly, talk to him loudly, or handle him roughly. You wouldn't like it and neither does he.

If you are bitten by a dog, have a doctor treat the wound at once. The dog should never be chased or stoned, but tied up so that he can be examined. It will save much anxiety and help the doctor to know just what to do, if it can be found out definitely whether or not the dog is really mad.

If you live in the country, learn about snakes. Very few of them will do you any harm; most of them are very useful in killing mice and other animals which destroy plant life. Never kill a snake just because he is a snake. He may be one of the farmer's best friends.

Always consult a doctor for any animal bite.

Sometimes farm animals are vicious or uncertain of temper. The best safety rule is to treat them with uniform kindness, so that they will know what to expect from you. Never frighten or tease them 'for fun,' and *never* take out your own bad temper upon an animal.

See that all harness is well fitting and strong, and that stalls are as comfortable as possible at all times.

Horses should be led by a firm hold on the halter rope near the head; bulls should be led from their stalls by means of a hooked stick fastened in their nose rings. A bull is dangerous when he can get his head to the ground, but he does not charge unless he can do this.

Electric Shock. Learn all about your electric toys, so that you can care for them properly, and so that they can not do any harm.

Disconnect all electric appliances, such as flatirons, toasters, toys, etc., after using. To leave them connected, spoils them and is the cause of many fires.

See that all cords and fixtures are in good condition and never use cheap, poorly made connections. A cheap cord ravels out at the socket very quickly and may leave the wire bare, so that you or someone else may get a shock, and it may start a fire.

Never touch two electric appliances at the same time, and do not touch an electric fixture with wet hands or a damp cloth. Do not touch an electric light or other fixture while you are standing in the bathtub, or while your other hand is in the water or is touching a water pipe, faucet or steam pipe. When you turn on the light in the basement, or on the porch after it has been raining, or anywhere else where the floor may be damp, it is safer to stand on something perfectly dry such as a piece of board, cloth, etc., for dampness acts as a conductor.

Keep away from trees, poles, wire fences, and barns during a thunderstorm.

Never touch a wire lying on the ground or dangling from a pole. The wire might be 'alive,' that is, charged with electricity, and therefore dangerous. If you find such a wire, guard the spot to keep others away and ask someone to notify the police or power company.

If a person is in contact with a live wire, do not touch him or you also may be held by the electric current flowing through his body. Flip the wire off with a piece of dry wood. If the person is lying on top of the wire, take a coat, throw it over the wire, take hold of the extreme ends of the sleeve and pull away the wire. Be extremely careful not to come in contact with the wire yourself. If the person is overcome by shock, start the prone-pressure method of resuscitation at once. Everyone should know how to do this. (See Section on First Aid.)

Observe the following rules in installing your radio:

Do not climb poles or towers which carry wires; somewhere they may be in contact with high voltage circuits and therefore be dangerous.

It is dangerous to string aerial wires over or under any other wire that is, or may become, electrically charged.

Always attach aerials in a substantial manner and so located that if either the support or aerial should break, they would not come in contact with electric wires.

Care must be used in putting up outside aerials to guard against falls which might result in serious or even fatal injury; don't take foolish chances.

Don't use kite aerials.

A standard make lightning arrester should be properly installed as a protection against fire as well as against lightning.

Careless wiring may result in fires. Use well insulated wire. Make connections so that they cannot accidentally be disconnected and the free end cause a short circuit—which may damage the receiving set, burn out the batteries, or start a fire.

Learn all you can about electricity, both for safety and for the interest you will find in studying the power that has made miracles possible.

Carbon Monoxide Gas. One of the most dangerous practices in a garage is to run the engine with garage doors closed. The ex-

haust of any gasoline engine gives off carbon monoxide, a poisonous gas which you can't see or smell. Many persons have been asphyxiated as a result of this practice. They collapsed before they realized the danger. Open both doors and windows to insure plenty of fresh air if you run the motor inside.

Elevators. Make sure of the number of the floor to which you wish to go before entering an elevator. Give the operator the floor number when you enter or at least three floors before your destination. Speak distinctly. The operator doesn't want to ask you to repeat, and he cannot catch a murmur.

When you board an elevator, pass back into the car. Never stop near the entrance, unless the car is full. If obliged to stand near the edge of the platform, face the shaftway opening and be careful to avoid having your clothes catch on parts in the shaftway structure.

Give the operator room to operate the control levers, hoist-way doors, and car gates. He has many duties to perform and must be free to execute the necessary movements without hindrance or distraction.

If you have children with you, draw them back from the edge of the platform, and keep them under control while entering and leaving. Also see that they are not left free to roam or play near the elevators in stores, hotels, or office buildings.

Refrain from opening hoist-way doors to find out why the elevator does not come up or down. The doors may be unlocked, but you have no business to open them.

Regardless of your hurry, never attempt to pass through a closing gate or to get on or off an elevator which is in motion. Your time is not nearly so valuable as your life.

When the car is already full of passengers, consider their safety and the value of their time, as well as your own, and wait for the next car.

H. First Aid to the Injured

"First Aid" means the immediate treatment given an injured person before the doctor arrives. If you know what to do in an emergency, you may be able to save a person much suffering and help him get well quickly. It is therefore very important to know

something about the injuries that occur most frequently and the treatment which they need.[1]

The following paragraphs give very briefly the most common injuries and their treatment. It will be advisable for the teacher to supplement this account with standard books on first aid, such as the *American Red Cross Textbook,* or the *Boy Scouts' Handbook.*

General Principles and Definitions. When a person is hurt, there are three things to remember. Keep cool and think clearly. Give the injured person all the air possible. This means that you must keep crowds away, and if the patient is indoors, see that the room is well ventilated. Administer first aid if you have had the training, and send for the doctor unless you know the injury to be so slight that the patient will not need his services.

Definitions. Everyone should know the meaning of the following words:

'Symptom'—anything that an injured or ill person shows or feels as a result of the injury or disease. For example, a painful swelling may be a symptom of a sprain; a headache is sometimes a symptom of indigestion.

'Germ'—There are many kinds of germs, but the most important to know about in accidents is the pus germ. This is a tiny organism which causes inflammation and the formation of pus in the wound. These germs do not live in the body, but may enter from the outside, which means that by precaution we can see that they do not enter or can kill them immediately upon entrance.

'Antiseptic'—a chemical which has the power of killing germs. Soap and water is a mild antiseptic. Tincture of iodine is probably the best to use for any ordinary injury.

'Emetic'—something which will make a patient throw up the contents of his stomach. A teaspoonful of mustard in a cup of warm water is a good emetic, which it is nearly always possible to give. Warm water or warm soap suds are also safe and easy emetics.

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[1] In teaching first-aid principles to children or to anyone else, it must be remembered that superficial knowledge is a dangerous thing. The teacher should take care not to confuse the child's mind with many details, but should teach a few common-sense principles which he can thoroughly understand and which he will probably find opportunity to put into practice. Emphasize "what to do" without reference to "what not to do."

'Sterile'—surgically clean. A sterile bandage is a bandage that has been boiled or treated with heat or disinfectant so that there is no possibility of germs existing it in. Surgeons sterilize their instruments by boiling, and their hands by scrubbing them with soap and water and then dipping them in an antiseptic solution.

'Hot or Cold Applications'—cloths wrung out of boiling water or ice water. They may be easily prepared by dipping in water of the temperature required and placing on a towel. Twist the ends of the towel in opposite directions to wring the water out of the cloth.

Shock. Shock accompanies all serious injuries and, with a particularly sensitive person, minor injuries also. The person is pale and confused, and he may lose consciousness. Make him lie down with his head lower than his body. Keep him warm and stimulate him with hot drinks; hot tea, coffee, bouillon or even hot water are all good stimulants. Cover him with plenty of blankets and place hot-water bottles around him. Rub his limbs toward the body if this can be done without uncovering him. Do not let him see his wound, and do everything possible to reassure him.

Unconsciousness. Very often a person loses consciousness when he has been injured. If his face is pale, it means that he needs more blood to flow toward his brain. He should lie with his head lower than the rest of his body. If his face is flushed, his head should be slightly raised, so that the over-supply of blood may flow away from his brain. His clothing should be loose, so that he may breathe freely and that the blood may flow or circulate normally and without restriction through his body. Do not try to give an unconscious person anything to drink, for he cannot swallow.

In fainting, a person's face is pale. If he begins to feel faint, he should sit down and put his head between his knees which will often revive him; or he may lie on the floor with his feet on the seat of a chair. If he actually becomes unconscious, see that he lies with his head low and has plenty of air. Bathe his face and chest with cold water and rub his limbs toward his body. When he has 'come to,' give him some water to drink, or better still, one-half teaspoonful of aromatic spirits of ammonia in one-third of a glass of water. Aromatic spirits of ammonia is the best stimulant to use

in first aid. [Don't confuse spirits of ammonia with ordinary household ammonia.]

If a person's face gets red and his breathing heavy as if he were snoring, send for a doctor at once. This may mean apoplexy or other brain lesion.

Choking. A baby will put almost any small article in his mouth. A larger child, or even an adult, will often hold pins, coins, pencils, or other objects in his mouth. This is a dangerous and disgusting habit. When a small child chokes, lift him up by the heels and slap his back so that the object will fly out. If an older person chokes, make him hold his arms above his head and slap his back between his shoulders. In eating, take small mouthfuls, chew thoroughly, and avoid fish bones and fruit seeds. If you choke on a fish bone, chew and swallow a crust of bread.

Do not use a toothbrush the bristles of which come out easily, for these may form an abscess in the throat.

Object in the Eye. Getting something in the eye is a very frequent and uncomfortable kind of accident. Never rub the eye. First try closing the eyes so that tears may accumulate and wash out whatever has gone in. If this does not work, pull the lid out and down and blow the nose hard at the same time. This will usually bring the object out. If this also fails, examine the eye and if you see the speck, remove it with the corner of a clean handkerchief. Very often, even after the removal of a speck, the eye will still feel as though something were in it. A drop or two of castor oil will soothe the irritation. If the object is difficult to find or deeply embedded, see a doctor. It is dangerous for amateurs to try to remove objects from the eye.

Nose Bleed. The patient should hold his head far back, place a handkerchief over his nostrils, and take slow, deep breaths.

Cold applications to the back of the neck and to the bridge of the nose will help to stop nose bleed. Cold water, cracked ice or a piece of cold metal like a large key or knife blade may be used. A folded piece of clean paper pressed between the upper lip and the gum will also help to stop bleeding. Do not blow the nose. If the bleeding is very severe and continues for long, call a doctor.

Bruises. To take the pain out of a severe bruise, use either very hot or cold applications. This will also prevent swelling.

Sprains. A sprain is the injury of a joint. It comes from the stretching, twisting, or even breaking, of the ligaments which keep the joint in place. Hot or cold applications and rest are the best treatment. After the applications have been made, the joint should be bandaged, so that it will keep its normal position.

Fracture of the Nose. The bones in the nose are delicate and are easily broken. Sometimes this will happen and the person injured will not know that there has been a fracture. After a severe blow on the nose, it is advisable to see a doctor to make sure that no fracture has occurred.

Teeth Knocked Out. A tooth that is knocked out may grow in again if replaced properly. If this happens to anyone when you are about, make him go with the tooth to the dentist.

Frost Bite. It is better to prevent frost bite by wearing warm enough clothing than to suffer the results. The ears, cheeks, nose, fingers, and feet are susceptible to frost bite and should be carefully protected. Very often frost bite may be avoided by rubbing the ears, cheeks or nose for a few moments when they begin to feel very cold. When any part of the body is actually frost bitten, it will become gray or white. It must be brought back to a normal temperature very gradually or great suffering will result. Rub the place gently with snow or cloths wet with cold water and do not allow the patient to go into a warm room. When circulation is normal again, a little vaseline will help to take out the soreness. Remember that when a person has once been frost bitten, he will be susceptible to it, often for years to come, and will need to take extra precaution.

Injuries Which Break the Skin. In a cut, prick, or bite, or any injury which breaks the skin, the important thing is to keep the wound clean and kill any germs that may have entered. Blood will carry off most of the germs, so that it is often advisable to let the wound bleed for a few moments. Do not wash the wound with ordinary water, because this is never perfectly pure. Paint around it with tincture of iodine and cover it with a sterile gauze bandage. Do not put court plaster or cotton batting on a wound, as neither of these is sterile. If no gauze bandage is obtainable, use the inner fold of a clean handkerchief or towel. Do not touch the wound with your hands.

Special care should be taken when any kind of wound has been received from a brass pin or a rusty nail, as these wounds are particularly liable to infection.

Always consult a doctor in case of an animal bite. Squeeze the bite so that it will bleed and the blood will carry off the germs; then scrub it with tincture of green soap, which may be bought from any druggist.

Splinters may be pulled out with a pair of tweezers or by putting a knife blade against the splinter and holding it with one's thumb nail. A small splinter that has disappeared under the skin may be removed with a fine needle which has been dipped into boiling water or passed through a flame. If a splinter is large or deeply embedded, do not dig it; see a doctor.

To stop bleeding, place a piece of sterile gauze over the wound. This will help the blood to form a clot which will seal the wound. If bleeding is profuse and the blood is red and flows in spurts, it means that an artery has been severed. Tie a piece of bandage or handkerchief loosely on the side of the cut nearest the heart and twist it tight with a bit of stick. This is called a "tourniquet." In all cases of severe bleeding, call a doctor at once.

Convulsions (*Fits*). A person in convulsions needs absolute quiet. Put the patient on the ground or floor out of reach of furniture which he may strike against. Insert a folded handkerchief or towel between his teeth, so that he cannot bite his tongue. Darken the room if possible and stay quietly by to see that he does not hurt himself. Send for the doctor.

Burns. There are two things to do for a burn: relieve the pain and treat for shock which always accompanies it. The following are good dressings for slight burns: baking soda dissolved in water, starch or flour, solution of Epsom salts, ordinary or carbolized vaseline, olive oil, castor oil, fresh lard, or cream. After the dressing has been applied, a piece of sterile gauze may be placed over the burn and held in place by a bandage.

If a person is badly burned and part of his clothing sticks to the burn's surface, do not try to pull it off. Cut around the place, and soak the cloth off later with castor or olive oil. Always call a doctor for a severe burn.

Poisoning. When a person has been poisoned, act at once. Give an emetic of mustard and warm water immediately. Do not wait for water to be warmed but give cold water in the meantime, for this dilutes the poison that is in the stomach. Tickling the back of the throat with a feather or with the finger will help to cause vomiting. It is vitally important to get the entire contents out of the stomach as quickly as possible.

Broken and Dislocated Bones. In case of a broken bone, it is best to leave the patient where he is until a doctor can reach him. Make him keep perfectly still and treat for shock. When a bone is dislocated, which means that it slips out of its socket, give hot or cold applications to the joint and keep the patient perfectly quiet. Slip the joint into place if you know how; otherwise call a doctor at once. Treat for shock if necessary.

Artificial Respiration. Breathing means drawing good air into the lungs and forcing bad air out. The breathing process, called "respiration," is often stopped in cases of drowning, gas poisoning, and severe electric shock. By a series of movements which make the lungs expand and contract as in normal respiration, a person may be made to breathe again. That is called "artificial respiration."

The Schaeffer, or Prone-Pressure, Method of Resuscitation

Start treatment immediately and as near the scene of the accident as possible.

Lay the victim on stomach—face to one side—arms over head. Now kneel — straddling victim — well below the waist — facing toward head.

Place your hands on victim's sides—just above hips and touching lowest ribs.

With arms straight—swing forward slowly—bring your weight to bear upon the victim—gradually and heavily, but not violently—for about three seconds.

Then swing back to original position, releasing your weight.

Repeat operation about twelve times a minute or at the rate you breathe.

All you do by these operations is to force air out of the lungs when you exert pressure; when you release pressure, the air flows back itself.

The victim will usually show signs of returning life within a half hour, but if not, continue as long as two hours.

Do not remove him until he is breathing normally without assistance; then use a stretcher. Keep him warm and in bed for several hours.

CHAPTER V

PREVALENT METHODS OF ADMINISTERING SAFETY EDUCATION IN THE SCHOOLS

This chapter is devoted to the presentation of facts concerning the methods that have been developed for handling the administrative aspects of safety education in the public schools. It comprises three sections, Section A presents a general account of the prevailing types of administration; Section B presents specific illustrations of these types in six American cities; Section C presents the replies to a questionary directed to a considerable number of city school superintendents.

SECTION A. GENERAL ACCOUNT OF PREVALENT TYPES OF ADMINISTRATION

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There has been an increasing interest in safety education during the past several years, both on the part of the general public and the teaching profession. In many school systems this interest has been carried over into the teaching of certain aspects of safety education. In other school systems the interest has been manifest only at different periods of the school year. In the majority of places there has been a feeling that safety education should have an important part in the development of a good school program.

In but few school systems, however, has an organized plan for safety education been adequately developed. To-day there is need for definite organization for safety education. A program ought to be laid out by which the proper teaching materials may be developed and a unified plan be assured, through which safety education may become a regular part of the curriculum. Such development does not mean that a large organization need be set up or a special staff of teachers be assigned to this particular work. But it does mean that a correct understanding of the importance of safety education must be brought about. To-day safety education

ought to be a part of the educational program of any city. In its broad significance this term indicates that in the majority of the subject matter fields there are opportunities for such education.

Wherever safety education has become a definite part of the school program, there are to be discerned certain outstanding facts: (1) the members of the teaching staff understand and appreciate the necessity for teaching safety as an aspect of behavior; (2) responsibility for the success of such teaching becomes a part of the administrative program; (3) definite ways are provided by which this type of teaching may have as adequate supervision as that given to arithmetic, history, or any other phase of school work.

The method of organizing safety education has varied according to the size of the community and the local educational system. Except for some negligible variations, however, the plans so far developed for successfully handling this problem may be listed under one of the six following types.

Type I
(Example, Detroit)

In the large industrial city where, because of congested traffic and unsafe living conditions in the crowded foreign sections, the accident rate is high, and where the school system provides special supervisors for each subject and special activity, *a special supervisor, or director, of safety education* is appointed whose sole duty is to see that safety is taught in every school. In order to do this work properly, the supervisor needs to know not only the school situation, but also the safety problem in all of its ramifications, the home, street, and industrial safety of the city. A cordial and reciprocating service between the city department of public safety, the press, the parent-teachers' association, local safety council, if there be one, and any other organization for the promotion of safety is established. The supervisor has a system of record keeping for all child accidents and fatalities in the city. He prepares and distributes material for all teachers that may be used in correlation with the regular everyday school work. The initiation and direction of all junior traffic patrols and safety councils is cared for by his office. Because of the size of the city and the large amount of outside work necessary for keeping this department up to date and functioning properly, such a supervisor is not able to

visit the school as often as would usually be the case; he acts as a consultant, visiting the schools when possible, always ready to receive the teacher and work with her over her individual problem. While a general course of study is followed, the work is individual and varied according to the district where the school is located. The junior traffic patrols and safety councils function only in their own school districts and are not organized into a city group. An example of this type of organization is Detroit, described more fully further on in this chapter.

TYPE II
(Example, Louisville)

An average American city of about 250,000 population follows in some respects the plan of Type 1. Here the system is not large enough to justify a full-time supervisor, or director, of safety, so *a combination of safety with some other subject,* such as health or physical education, is made. The director in this case usually follows the method he has used in supervising either the health or physical education as the case may be. He issues regular instructions to his teachers, telling them what he wants emphasized for the month and the amount of time to be devoted to each subject. Because the city is smaller than in Type I, he is able to visit the schools oftener to see whether or not his instructions are being followed. He also furnishes new material to be used by the teachers for the purpose of correlation. The junior club activities are required in every school according to a standard organization, and there is a city federation with pupil officers, thus enlisting all the schools into a city-wide movement. The actual school work in this case is no more formal than in Type I, but the director serves more as a supervisor than a consultant, and his interest results in more uniformity in the type of work done, a more definite time allotment, and standardized junior activities. Here also a close relationship exists between the school department and other city organizations. Louisville is presented to illustrate this type of organization.

TYPE III
(Example, Springfield)

In other cities it has been found possible to take care of safety education adequately by having it *considered administratively as a regular part of the general program of education.* This obtains

in cities where the supervisors are alive and interested, not alone in the furtherance of their particular subject, but also in the complete well-rounded development of the child. Where, in addition to these special subject supervisors, there are also general supervisors for the elementary, intermediate, or junior-high-school grades, safety may normally be expected to share its proportionate amount of time and attention from these general supervisors, like reading, arithmetic, health, or any other school subject. Through their visits to the classroom and the regular teachers' meetings, the general supervisors have an excellent opportunity to encourage the exchange of ideas and methods for teaching safety. While their advice and instructions may be given as suggestions, they are practically directive, as these supervisors work in close coöperation with the superintendent's office. In issuing their instructions to the teachers in their department, safety is among the items noted. Such supervisors do not as a general rule have time to direct any city-wide safety organization, but they encourage individual principals in organizing club activities and traffic patrols for their own school. Under such supervision, safety is more completely absorbed by the regular curriculum subjects and is used as content for practically every subject taught in the schools. It is not considered as a special or outside interest, but a necessary fibre in the complete education of the child. This plan of organization may be found described under Springfield, Massachusetts.

Type IV
(Example, Kansas City)

When there is a strong and active local safety council functioning in a city, it is quite customary for this council to cöoperate with the schools. A *school committee of the safety council,* made up of representative people from both the public and parochial schools, is appointed. This committee acts only as a recommendatory body to the schools. It submits plans and the material for carrying out these plans to the superintendent of schools. If the plans meet with the approval of the superintendent, the local safety council stands ready to furnish material and persons to help organize the work in the schools. Since the local safety councils have a fund of information as to both local and national safety conditions, excellent bulletins are prepared and distributed to teachers. Perhaps the most perfect junior safety council organizations are

developed under these conditions, as the junior school clubs form the nucleus of the future local safety councils. It should be said that this plan will work out satisfactorily only where the school committee of the safety council is made up of members who have a thorough understanding of school work and where the superintendent of schools and the safety council manager are in complete sympathy with each other's work. In all standard local safety councils there is a representative of the schools, sometimes the superintendent, sometimes a member of the school board, on the governing or executive board of the council. See the presentation of Kansas City for an exemplification of this type.

TYPE V
(Example, Pawtucket)

A committee consisting of one teacher from each school, together with the supervisors, is appointed by the superintendent and known as the "*Teachers Safety Committee*" or "Council." The special interest of this group of teachers is safety, and they meet at least once a month. At these meetings an opportunity is presented for the exchange of ideas and informal discussions. Plans for future work are drawn up, bulletins prepared to be distributed by the central school office, and special projects for ways and means of keeping safety a vital part of the school are outlined. Each teacher on this committee reports the results of these meetings to her own principal and contributes the latest developments in the safety work at the next teachers' meeting in her school. The cost of such work is comparatively small, yet it encourages active interest on the part of the teacher. In one community operating on this plan the committee has prepared an original and valuable course of study on safety, engineered a city-wide "Safety Week" for the children, and enlisted the active support and cöoperation of every city department, of the press, the women's clubs, and the general public. Pawtucket, Rhode Island, is illustrative of this general plan.

TYPE VI
(Example, Lynn)

A laboratory school for demonstrating the most effective method of teaching safety may be used to great advantage in communities where it is necessary to rouse the teachers and the general public to the importance of this work and prove that safety may be taught without disarranging the entire school program. The school se-

lected to serve as *the demonstration center* is one where the principal and her teachers are sympathetic and interested in working out new projects. A supply of the best available publications on safety education is given to these teachers, together with local data on safety. For a certain period of time, varying from six weeks to six months or more, the teachers in this school concentrate on safety, testing out different methods and materials. When they have the subject well in hand, teachers from the other city schools are requested by the superintendent to visit this school, observe the work, and apply the same methods and material in their own classes. Safety, while not emphasized to so great an extent all the time, will remain the special interest of this school. Experiments and plans successfully worked out here are made available to other schools. The principal and teachers of this school receive teachers from other schools in consultation and help them in organizing a similar piece of work in their school. This type of organization has been used to advantage in Lynn, Massachusetts.

These six types will indicate the plans that have been found useful in organizing safety education in the public schools.

It will be evident to any school administrator that some of these plans represent more or less temporary devices, of value primarily in getting the new material organized and properly introduced. It will be evident also that the particular plan to be followed in organizing similar work in other school systems must depend somewhat upon the size of the system and somewhat upon the type of organization that prevails with respect to the administration and supervision of other subjects in the curriculum.

While helpful suggestions will be found in all of the types mentioned, the best results will come only after much thought has been given to the consideration of local needs. All school systems should base the program on certain underlying principles of general education as they apply to so-called safety education. When these general principles are understood and observed, the matter of providing more adequate opportunities for safety education is rather easily carried out. When all agree that safety education is a necessary part of a general school program, it will not be difficult to find ways by which the teaching materials may be organized, the methods of presenting developed, and a plan of supervision set in operation.

SECTION B. DETAILED ACCOUNTS OF METHODS OF ADMINISTERING SAFETY EDUCATION IN SIX CITIES

B 1. METHOD OF ADMINISTERING SAFETY EDUCATION AT DETROIT

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The development of a workable program of safety education by the Board of Education of Detroit began in the school year 1918-1919 with the appointment of a small committee of principals and teachers to devise plans and collect suitable material for the teaching of safety in the public schools. The necessity for accident prevention measures was forced upon the attention of the schools by the serious traffic situation growing up in a city occupied with the manufacture of automobiles and struggling to control heavy streams of traffic, all converging to the center of the city and all flowing on one level—traffic that was exacting an alarming sacrifice of children's lives. The Safety Education Committee met at intervals during the year and labored faithfully, but being occupied with regular duties in their several positions, the members were unable to give the time required to develop an untried subject or to devise adequate plans for training boys and girls to cope with ever-increasing traffic dangers that during the school year 1918-1919 caused the death in Detroit of 96 school children.

In September, 1919, a teacher who had both teaching and administrative experience in the Detroit schools was appointed Supervising Instructor of Safety Education and given full time to devote to this special field of work. The most urgent tasks were undertaken first, and a fourfold program was developed:

(1) A study and analysis of traffic accidents to school children
(2) The construction of a course of study in safety education for the elementary schools
(3) Instruction of a class of Detroit Teachers College students in the principles of safety education
(4) Coöperation with all civic agencies concerned with public safety.

While each of these phases is here discussed separately, emphasis needs to be placed upon their interdependence for the development of a constructive, permanent safety program.

(1) The Safety Education Department was supplied by the Detroit Police Department with copies of all accident reports in which school children were involved. These reports were found to furnish so much first-hand information that they proved invaluable and their use has continued through successive years. Copies of them are sent by the Safety Education Department to the principals of the schools concerned. Providing data on causes and types of accidents, seasonal dangers, etc., they serve to show what special kind of instruction is needed and what results are being accomplished by safety education.

(2) A course of study in safety education was planned with reference to the actual situation as revealed through study and analysis of the accident reports referred to above, with consideration for the natural interests and activities of children in the various elementary grades, and with the assistance of a group of teachers who experimented with materials and methods and made many valuable contributions to the undertaking. This course of study was introduced in all of the elementary schools in September, 1920, and has been in use ever since. It aims to provide the teacher with suggestions for teaching safety through the regular subjects of the curriculum. The instruction is of a constructive nature and tends to the establishment of safety habits in the children. The children of all the grades take a keen interest and delight in their safety work, and the teachers display great ingenuity in varying the instruction and finding new devices to use in developing the work. The course of study is supplemented, whenever occasion demands, by the insertion of material in the monthly bulletin published by the Detroit Board of Education for the teachers of the public schools.

(3) An elective course in safety education, dealing with the principles of accident prevention and methods of teaching safety, was given for several semesters at the Detroit Teachers College; later, it had to be discontinued because the increasing demands of the work in the public schools occupied the supervisor's entire time.

(4) Coöperation with the other civic agencies of public safety has been one of the most important functions of the Safety Education Department. The Police Department and Fire Department officials welcomed the opportunity afforded by safety education to

have their ideas injected into the public schools through official channels of the Board of Education. A schedule of short talks by a traffic officer in uniform was carried out with such success in all of the elementary schools that the plan has become a regular part of the safety education program, to the satisfaction not only of the Police Department, but of principals, teachers, and pupils as well. In the same way, a schedule of talks by a fireman, who explains how children can help to prevent fires and who shows them how to turn in a fire alarm, alternates with the policeman's talks, producing gratifying results. The instruction in fire prevention given to all elementary-school children is believed to be one of the factors contributing to the reduction of the city's annual fire loss.

An instance of the prompt coöperation given by city departments in promoting safety for the school children might be cited. Soon after the opening of the new public library on the main thoroughfare of Detroit, a little girl was killed in front of the library as she crossed the street after leaving the building. The children's librarian notified the Safety Education Department and the situation, evidently a new hazard, was investigated. Within three days the Board of Public Works moved the side walk to eliminate a dangerous jog in the crossing, the Police Department appointed an officer to safeguard the crossing during the hours that school children were found to visit the library, and the schools in the vicinity gave notice to the pupils of these protective measures. Thus, the Library Commission, the Board of Public Works, the Police Department, and the Board of Education worked together without any red tape or delay to correct a dangerous situation, with the result that no accident has occurred in the vicinity of the library during the three years that have since elapsed.

From time to time, mutually helpful contacts have been developed with numerous organizations—the Board of Health, Department of Public Works, Detroit Automobile Club, Detroit Safety Council, Boy Scouts, Parent-Teacher Circles, Women's Safety Committee of Detroit, Federation of Women's Clubs, etc.

The coöperation of all these organizations is largely responsible for the success of the Board of Education's safety program. By means of the women's organizations safety education has been carried into the homes as well. The number of fires and of fatal accidents occurring in homes shows that it is needed there and that the education of adults in safety principles is quite as imperative as that of the children if accidents are to be prevented. The process, however, is slower and vastly more difficult of accomplishment.

In addition to the four-fold program originally planned and briefly outlined above, various other needs and possibilities that have arisen from time to time have seemed naturally to come within the jurisdiction of safety education and have materially broadened its scope. Two of the most important of these may be mentioned next.

The question of organizing safety activities of pupils has been referred repeatedly by school principals to the Safety Education Department for advice and assistance. Such organizations, of necessity, differ widely, varying with the type of school, its locality, the age and ability of the pupils, etc., but the existence of some worthwhile activity in which the children participate or which they themselves conduct seems vital to the success of safety education. Whether the safety organization is a club in the lower grades, a traffic court or safety patrol in the upper grades, or some other safety enterprise, appears to matter little so long as the pupils are allowed and encouraged to take an active part and responsibility in the work. School Safety Patrols have proved to be one of the most helpful factors in the actual prevention of accidents and in training the younger children to cross the streets in a safe manner. While they do not control or direct the vehicle traffic, they willingly render a most valuable and effective service in marshalling the children at the curbstone and assisting them in crossing the street.

Another phase of work that has devolved upon the Safety Education Department is the solution of dangerous traffic situations in the vicinity of schools. Requests for assistance in these matters come from school principals, parent-teacher associations, or anxious parents. After each case has been investigated and diagnosed, some solution is proposed and carried out. In most of the serious situations the Police Department is asked to provide a traffic officer. Sometimes, the school janitor is deputized to do the traffic work or possibly a safety patrol is organized and given training by the policeman assigned to assist the schools' safety program.

The administrative aspects of safety education in individual schools are left to each principal to work out for his own building. On account of the variation of organization of the 175 public schools in the city system—a few schools have only the primary grades; some comprise eight grades, but the majority six grades; the newer

schools are of the so-called 'platoon' organization, while the older buildings adhere to the traditional type—considerable variety exists in the administration of safety education in different schools. However, a few general statements apply to them all. For example, safety instruction is included in the curriculum of all the elementary grades, beginning with the kindergarten, and every teacher is expected to stress safety education in at least one lesson a week, through any subject or by any method that best suits her general plan. Most teachers do not confine themselves to this minimal requirement, but are encouraged by the interest and response of the pupils to develop more frequent lessons, in each of which some safety principle is used as motivation.

In addition to this regular, systematic safety instruction on lesson topics outlined in the course of study, or suggested by the ingenuity of the teacher and the accident situations constantly arising, safety education is given impetus and assistance by various school activities closely related to the instruction and affording the pupils an opportunity to work out their safety ideas and put them into actual practice. The principal usually assigns some teacher, or possibly the assistant principal, to have charge of the safety activities. The teacher of social science is frequently the one to sponsor this work, assisting the children in planning and carrying out their traffic work, both inside the buildings and at the school crossings, and having a general supervision of the safety patrol. Many of the older patrol boys have developed unusual powers of leadership, working on all the details so effectively and faithfully that the teacher is relieved of any arduous duties.

Sometimes the auditorium teacher is given special charge of safety education and during the year plans a series of little plays designed to teach safety, of meetings in the nature of a safety council in which pupils from the different grades participate, or some other enterprise suggested by the children. Frequently, a number of teachers and classes unite in these undertakings—for example, in the preparation of a safety play the English classes write the parts; the art classes plan the simple stage settings; the sewing classes make the costumes, while the auditorium teacher has the general supervision of the whole affair.

Up to the present time, the work of the Safety Education Department has been confined chiefly to the elementary schools, where the need seems greatest and the field most fertile. Plans are now under way for the gradual extension of safety instruction and activities into the intermediate schools, where pupils who recently graduated from the elementary grades have of their own accord organized safety patrols that are rendering good service. A revised and simplified form of the traffic code is being prepared for use in the social science classes, as that form of instruction seems most practical and interesting for use in the intermediate schools.

Mention should be made of a special form of safety education that has been carried on by the Detroit Board of Education for ten or twelve years. The Department of Vocational Education publishes each year a small handbook of instruction to teachers in that department.[1] This handbook states the safety rules that each teacher should know regarding the use and safeguards of power machinery and of the equipment of classes in domestic science and domestic arts, such as gas stoves, electric irons, sewing machines, etc. In addition, each boy taking machine shop work is furnished with a copy of "Accident Prevention in the Machine Shop," another handbook published by the same department.[1] Thus, a very practical and necessary form of safety instruction is carried on in all vocational and trade classes. These are for the most part located in intermediate and high schools. In this way a valuable contribution is being made to the problem of safety in the industrial world which the boys and girls of the vocational classes are preparing to enter.

While much might be said concerning the results that have been accomplished in the six-year period during which the general program of safety education has been functioning in the public schools of Detroit, if space permitted the presentation of details concerning the educational value of the subject, its importance in civic training, and the altruistic influence it exerts in the lives of children in their impressionable years, its practical results can be measured to some extent by the gradual reduction in the number of fatal traffic accidents to Detroit children in the face of an enormous increase

[1] Copies of this handbook are available in limited quantity for those who are interested.

in the school population and in the number of automobiles on the city streets. In 1924 the number of these fatalities was 45. Comparison with the twelve months of the 1918-1919 record seems to justify the introduction of safety education in the public schools and in the lives of boys and girls. In their hands, hearts, and brains lies the solution of the problem of making America safe.

B2. METHOD OF ADMINISTERING SAFETY EDUCATION AT LOUISVILLE

FRANCES H. MINER
Director of Health and Safety, Louisville Public Schools

The story of safety education in Louisville comprises four episodes—the original impetus, and three distinct stages of development. The original enthusiasm was brought to Louisville from the National Safety Congress in Cleveland seven years ago by a local manufacturer, Mr. Robert Schmitt. The cause of safety education was so clearly presented to the Board of Education that 1200 copies of Doctor Payne's book, *Education in Accident Prevention,* were purchased for distribution among the teachers, and a bulletin announced the arrival of another subject for the curriculum.

For three years there was no organized supervision, and the new subject gained favor only where the principal was really interested.

During the next three years there was definite supervision. The responsibility of the still struggling new subject was added to the already full schedule of one of the assistant superintendents. Then the work began to gain momentum and uniformity. There was full coöperation with the Louisville Safety Council, of which Mr. G. H. McClain was then secretary. The most successful project was the annual "Paint-up and Clean-up Campaign."

In September, 1924, a full-time Director of Health and Safety was appointed. In the opinion of the present superintendent of schools, safety education is absolutely necessary, and can be successful only when administered by a director who is a member of his staff. During 1924-5 the entire time of the Director was given to establishing thoroughly the instruction in safety education.

Within the classrooms there is a definite time allotment for one lesson each week in safety. While this period varies in different schools from 30 to 45 minutes, it is a period specifically given to safety education; since health education is provided in entirely separate periods. This instruction in safety education is based on a printed course of study, prepared especially for Louisville.

This instruction is supplemented by junior safety council organizations in each school. Use is made of safety plays, 'stunts,'

talks by authorities on various subjects, debates, etc. The junior safety councils are encouraged to supervise such activities as home-inspection, clean-up and paint-up campaigns, essay contests, radio talks, and poster contests. The junior-safety-council guards and safety patrols are on duty every day on the stairs, halls, playground, in the lunchroom, and at the drinking fountains, to maintain discipline and order. They act as traffic officers in guarding curbs and in taking younger children across the street. In some schools a student government organization is maintained.

There has been material reduction in fatalities among children of school age since safety education and junior safety councils have been in operation. During 1923 twenty-four children between the ages of five and eighteen lost their lives in motor accidents. In 1924 this number was reduced to fourteen, a saving of nine lives. Nearly half this number were parochial school children; safety has not been taught in the parochial schools in Louisville. From January 1 to October 19, 1925, there were eleven children killed in our streets. Four of these were of pre-school age, and of the remaining seven, four were not enrolled in the public schools. From April 16 to October 19, there was but one fatality to a child of school age, and that a boy of eight who was not enrolled in the public schools.

As significant are the statistics of motor fatalities in Jefferson County in all ages. In 1923 there was a motor registration in Jefferson County of 36,900. In that year there were 17 fatalities for every 10,000 cars. In 1924 the registration was increased to 48,316, and fatalities decreased to 9.1 for every 10,000 cars. In 1925 the registration increased to 52,363, and to date the fatalities have been 7.44 for every 10,000 cars.

We feel, in Louisville, that the effort we have made to induce children and the adult population to think, feel, and act safety has been more than justified by the result.

B3. METHOD OF ADMINISTERING SAFETY EDUCATION AT SPRINGFIELD

ZENOS E. SCOTT
Superintendent of Schools, Springfield, Massachusetts

One of the aims of public schools is to educate for successful adjustment to life. In the light of this conception new demands must be expected and current practices must be changed from time to time. From this point of view, safety education should become a part of the public school program.

The first step in the Springfield program was a study of such activities as might be helpful in reducing accidents among the children of congested areas; and a consideration of a program of general safety for the entire city.

It was soon evident that these activities should be organized in a city-wide program. To this end, a committee made up of teachers, principals, and supervisors was selected to formulate a course which could be used in the elementary schools.

This committee studied local conditions and examined all available courses of study in use in other cities. Conferences were held with members of the Springfield Safety Council and the field secretary of the National Safety Council. The chairman of this committee attended conferences of the National Safety Council, where he studied methods in use in carrying on safety programs in industrial and civic organizations, and in school systems.

Such a plan for coöperative work and broadening contacts preceded the formulation of the Springfield Tentative Course in Safety Education now in use.

The committee had several meetings at which the general ideas underlying safety education were developed. The committee was then so organized that special phases of the program could be prepared for each grade. Teachers and principals who had contributions to it were organized with sub-committees and were called upon to work for consecutive days upon the subject matter, method of presenting, etc. During the progress of this work, the classroom work of these teachers was done by substitutes. When the first complete outline was made, the general committee again was asked to

give careful and constructive criticism upon the entire plan. The program was then ready for distribution to all schools.

No separate period was provided in the time schedule. Lessons in safety became a part of other subjects. For example, safety in the home was a study added to the work centering around home activities in the primary grades. In upper grades, discussion on responsibility for public safety assumed by various civic and industrial organizations became a part of the subject matter of civics and geography.

Meetings of teachers were called for the distribution of the tentative course. In these meetings interest and enthusiasm were created by pointing to the importance of the problem and to the commendable work of the committee. Supervisors of special subjects discussed the relation of safety education to the work of their respective departments. Plans for the use of this material were presented by the general supervisors, under whose direction this work was to be carried on.

During the months in which this outline has been in the hands of the elementary teachers, many valuable suggestions for its improvement have been made by both teachers and principals.

B4. METHOD OF ADMINISTERING SAFETY EDUCATION AT KANSAS CITY[1]

JULIEN H. HARVEY
Director, Kansas City Safety Council
Kansas City, Missouri

In presenting this statement on the "Method of Administering Safety Education in Kansas City," it will be the purpose, first to outline the history and development of this work, now in its fourth year, and second, to tell of the varying activities which have been engaged in as a means of stimulating and keeping alive the interest of the children and which have resulted in a high standard of excellence. It is felt that by tracing the development of this work, step by step, some help may be given to those communities which contemplate undertaking this very necessary activity.

In the spring of 1922, the Kansas City Safety Council was reorganized, and the first work to which it gave consideration was the possibility of a definite program of safety education in the public schools. It should be stated that for many years the subject of accident prevention had received some attention in many of the schools, but not as an organized, city-wide school movement. As the first step, and with only a few general ideas in mind, a conference was held with the superintendent of schools for the purpose of outlining our views and of obtaining his ideas and coöperation, and further, his suggestions as to the best method of procedure. As a result of this conference, a children's activities committee was appointed by the safety council with Mr. George Melcher, Assistant Superintendent of Schools, as chairman. On this committee, the chairman appointed several elementary-school principals and teachers, the president of the parent-teacher council, and some four or five lay members.

Duties of Committee

The duties of this committee, as outlined by the chairman at the first meeting, were to prepare a program on the subject for

[1] This account of the situation at Kansas City has the endorsement of Asst. Supt. George Melcher, who, as chairman of the Children's Activities Division, coöperated fully with the Kansas City Safety Council.

submission to the Kansas City Board of Education for approval, and if approved by that body, to direct its introduction into the schools, and lastly, through periodical conferences, to act as a stimulating agency in carrying on the work.

It was readily agreed that the program would call for two lines of activity, first, classroom instruction, and second, pupil organization. Two sub-committees were appointed to draft the program—one on instruction, composed exclusively of representatives of the schools, and one on organization, made up of representatives of the parent-teacher council and of the safety council. Space will not permit detailed mention of the enthusiasm which these sub-committees threw into the work and of the very careful and painstaking way in which the field was studied. The theory on which these committees worked was that the school curriculum was already overcrowded, so that caution must be used that nothing was added, either to classroom instruction or school activity, which would be a burden on the instructing staff. This caution was particularly shown in the report on instruction, which was based on the theory of furnishing safety material for use in connection with the courses in civics, arts, mathematics, and language. On completion, these reports were submitted to the general committee and later to the immediate staff of the superintendent of schools for criticism and suggestion. After the program was approved by these groups, it was submitted to the board of education in the name of the safety council and was approved *in toto*. The complete report on instruction and junior safety council organization was then printed in pamphlet form for distribution to every teacher in Kansas City. This pamphlet contained a strong endorsement over the signature of Superintendent Cammack.

Selling the Plan

It was the feeling of the committee that the next step was the selling of this plan to the principals. Accordingly, a representative of the safety council was invited to be present at the first meeting of the principals after the opening of the school year, for the purpose of outlining the proposed work so far as it concerned pupil organization. In addition, the several principals serving on the committee outlined to this meeting the method of classroom in-

struction, laying emphasis on the fact that the introduction of "safety" would not call for any addition to the curriculum or any additional work on the part of the teachers.

Inauguration of Plan

In so far as the inauguration of the program was concerned, the instruction work was started in all schools immediately thereafter. However, as to junior-safety-council organization, it was the feeling that, inasmuch as we were to a greater or lesser extent blazing the trail, we should start in a moderate way and profit by our experience as we progressed. Accordingly, twelve schools were selected for initial work. Prior to the forming of each of these organizations, a representative of the safety council met with the principal and teachers of the individual schools, going over the entire plan in detail. Then, after the active members of the junior organization had been selected, the safety council representative returned for the second time and aided in starting the organization. The experience gained from this initial work proved very valuable indeed. Before the close of the first year's work, approximately sixty schools had such organizations.

Growth of the Junior-Safety-Council Idea

The following year (1923) the parochial school authorities were approached and readily agreed to the introduction of safety into their schools on the same basis as the public schools. During that year the work progressed to the extent that the number of junior organizations increased to ninety. As an indication of the vital interest of the child in this work, we might mention the fact that twelve of the schools organized their councils on the opening day of the school year 1924. In most instances this was the result of a demand from the pupils that they "have their junior safety council." During that year the number of councils rose to ninety-eight, including every school of any size, either public or parochial, in Kansas City, Missouri.

Stimulating the Work

It has been with the junior-safety-council work and its proper stimulation that the Safety Council has primarily concerned itself.

From the first, the feeling of the children's activities committee was that, no matter how live or vital the subject of safety may be, constant stimulation is needed. New and better things must be constantly brought to the children if the work is to live and progress as it deserves. With that thought in mind, the committee first determined that the members of the council must have an insigne of membership. Children love to 'belong' and have everyone know that they belong. Accordingly, the use of buttons, in vogue most everywhere, was adopted, with a small button for associate members, a little larger one for the active members, and a large medallion for the patrol. It was the desire to make of this button something more than a mere scrap of celluloid and tin, something with a real meaning, so in many instances these buttons are taken away from the children for careless habits and at times the active members of the council have been suspended and deprived of their buttons for failing to obey the rules of the council.

Patrols

An activity of primary importance, both as a stimulus to the children and as a means of doing a real service, is found in the junior safety patrol. In Kansas City, these enroll approximately 1250 boys and girls and are the envy of all council members. In most instances the patrols are used, not only for street crossing duty, but also on the playground for the elimination of hazardous practices and in the building proper for directing the exit and entrance of the pupils. Each member of these patrols is provided with a large medallion button, 3½ inches in diameter, and so proud are many of their distinction, that the button rarely leaves a prominent place on their persons.

After the end of our first year's work, a new office was created in the junior council, known as "Captain of Patrols." To be selected for this position by one's comrades is an honor second to none, not even the presidency surpassing it in distinction.

Later, a code of ten questions for prospective patrol members was propounded by one council. To become a patrol member, one must be able to answer these questions satisfactorily. This has had a very fine effect and the code has come into general use.

This year, the committee is going a step further and will furnish all street patrol members with a specially designed flag to be used as a warning to drivers that children are crossing.

City-Wide Organization

After the inauguration of this work and as soon as a sufficient number of the schools were organized, the task of forming an association of safety councils was undertaken. This group was known as "Associated Junior Safety Councils of Kansas City." A constitution and by-laws were adopted and student officers were elected. The program calls for two or three mass meetings each school year, interspersed with monthly meetings of the officers for an exchange of ideas. These meetings have proved very valuable, in that the children are anxious to tell of the things they are doing in their own school. Our attention is repeatedly called to the fact that ideas developed in these conferences are carried into effect in many schools.

Monthly Reports

In order to tie the various junior organizations in with the work of the senior safety council and to give the directing committee knowledge of what is being done throughout the city, monthly reports on a regular printed form are requested of each organization. On this form is shown the number of committees actively in service, just what they are doing, the number of new associate members taken in during the preceding month, requests for buttons and other supplies. On these forms are also reported hazards coming to the attention of the children, and it is always the aim of the senior council to follow up every request thus made by the children and bring about a solution if possible.

Monthly Bulletin

To keep the children in contact with safety work throughout the city, a monthly bulletin is sent to each school. This bulletin outlines definite programs for council meetings and also contains short essays and poems and general news of the safety movement, particularly in so far as it concerns the children.

Standard Councils

In 1924, as a further stimulus to active work on the part of the junior safety council, a set of standards was formulated which, if adhered to, would constitute the individual council a "Standard Junior Safety Council" for that year. The requirements, six in number, are as follows:

(1) As its officers: a president, vice-president, secretary, and captain of patrols.
(2) Two or more active members from each 4th, 5th, 6th, and 7th-grade room in the school.
(3) At least one-half of the other pupils in these rooms enrolled as associate members by March of the school year.
(4) An active safety patrol established.
(5) Meetings held regularly at least twice a month.
(6) Reports in full made promptly each month to the Kansas City Safety Council.

It was the feeling of the children's activities committee that if these requirements were lived up to, there would be no question but that the junior safety council was doing a good active work in its own school. It will be noted that one of the requirements calls for regular meetings of the council; this the committee has at all times felt to be very necessary if the work is to progress. At the close of the school year 1924-1925, 20 councils had complied with the requirements and were awarded handsome framed certificates.

Other Methods of Stimulating Interest

Aside from those activities for stimulation of interest in the junior safety council, there are certain ones which pertain to the school as a whole.

1. Contests of various kinds are held for the best essays, posters, plays or pageants submitted. The general usage of these activities in many communities precludes any necessity for detailed description.

2. An activity of very widespread effect is the Semi-Annual Home Inspection Campaign. The safety council will very shortly inaugurate the eighth of these campaigns. We believe this work has done more than any one single activity to stimulate the *adults* of Kansas City to greater care and caution and to bring home to them how much the children are doing for safety. Particularly in

the direction of fire has this activity had a very marked effect. This is demonstrated by the fact that in the last three years the record of residence fires has shown a steady decrease in Kansas City amounting to more than fifty percent, whereas all other classes of fires have increased.

3. "Award of Merit." Every community has its examples of individual courage or bravery and Kansas City is no exception to the rule. As a consequence, last year an award of merit was developed, consisting of a gold badge, which was to be awarded to children for conspicuous acts of courage. Three of these medals have been awarded. We feel that this is but another illustration of the activity which must be carried on properly to stimulate the children and keep the movement vigorous.

Revision of Working Material

During the three years which have been referred to, the pamphlet on instruction and organization has been revised and reprinted twice. In each revision there was added the accumulated experience of the preceding period.

Safety is not a special subject in the Kansas City schools, nor is there any special appointee for it in the school organization. However, there is a very general interest in the work on the part of the teacher who is constantly on the lookout for new and stimulating ideas for classroom instruction.

In concluding this brief survey of the work among the children, the relationship of the safety council should be clearly set forth. It will be understood that this council is a purely recommendatory body and has no direct jurisdiction over these school activities. The work of the children's activities division, as I have set forth, is purely suggestive. We realize that outside agencies have a place within our schools or within other administrative bodies only in so far as they approach these bodies in the proper spirit. At all times the safety council has endeavored to hold its proposed suggestions to a minimum, realizing the great burden that is already placed upon the schools and the necessity for conserving their time. In other words, it has been the purpose of the council at all times to put itself in the place of the school authorities and view its rec-

ommendations from the light in which we would view them if presented to us.

It has been very fortunate for the well-being of our children and the success of our work that we have had to deal with such a body of men and women as are found in control of the public and parochial schools of Kansas City. In the last analysis, any success which has been achieved in this community is due to the broad-minded way in which this problem has been viewed and the enthusiasm displayed all along the line by those responsible for the welfare and development of the coming generation.

B5. METHOD OF ADMINISTERING SAFETY EDUCATION AT PAWTUCKET

RUTH C. EARLE
President, Pawtucket Teachers' Safety Council
Pawtucket, Rhode Island

Knowing that children's accidents in the United States have been caused largely by the failure of the children to look to the left and to the right in crossing the street, by careless coasting, by playing with matches, by hitching on to wagons, by not observing passing street cars and automobiles and countless other thoughtless acts, the teachers of our city felt that if some specific lessons could be given our children to help them guard against dangers, much would be accomplished toward eliminating accidents. Ideals and habits of carefulness must be implanted during the plastic years of school instruction if they are to be developed at all.

With this in view the Pawtucket Teachers' Safety Council was organized January 11, 1923, thus vitalizing the safety education already given in our schools. The administrative officers are a president and secretary. The executive committee consists of our Superintendent of Schools, William A. Newell, and three other members. It also includes the president, secretary, and our grammar and primary supervisors *ex officio*. The executive committee plans to meet each month, one week before the council, to plan work and to keep up enthusiasm. The council consists of principals of smaller buildings and representatives chosen by the supervising principals of the larger buildings. The council includes the first six grades.

The purpose of the council is first, to promote safety instruction already being given in our Pawtucket schools; second, to bring our program to the attention of the parents through the mothers' clubs and parent-teacher associations; third, to enlist the press; and fourth, to plan and suggest work for the teaching of safety from the kindergarten through the sixth grade.

Our first work consisted of inspiring talks giving by prominent safety workers. Through the courtesy of the president and general manager of our city paper, *The Pawtucket Times*, a slogan, or headline thought, was printed at the top of the front page of the paper every night for several weeks. These slogans attracted considerable attention.

Early in the first full year of our organization, the executive committee formulated a plan whereby the work which the council was trying to accomplish could be brought before the public. The object of the campaign was to teach the value of safety at home, at school, on the street, and at play.

City and street railroad officials, business men, merchants, and various organizations entered heartily into the project. The movement was endorsed by the governor, mayor, prominent business men, and the clergy. Managers of the Pawtucket and Providence papers were interviewed and given an outline of the work prepared by the council. During the progress of the campaign, the papers contained articles describing the various activities that took place in the schoolrooms, and school yards; printed jingles and stories written by the pupils and the teachers; also pictures, editorials, and slogans. A "Musik Tawkalog" was given over the radio. This was clearly heard by thousands of listeners. It would be impossible in this report to designate all of the other activities carried on in this campaign.

The following stories, written and illustrated by the teachers, were printed in the *Times:* "An Umbrella Story," "Mrs. Shoes' Children," "Humpty Dumpty," "Peter, Peter, Pumpkin Eater's Party," "Polly Flinders," and "Jack and Jill." These were cut out by the children, colored, and made into scrapbooks. These very delightful and artistic books were distributed to the hospitals and health camps.

It is the aim of the council to impress the children that they should obey the warnings given by parents, teachers, and well worded signs about avoiding certain negligent things which generally result in accidents.

The executive committee prepared a manual, entitled "Safety Training for Children," which is used as a basal textbook in the 4th, 5th, and 6th grades. The following is an outline in brief of the program presented:

September—Safety in the Streets.
"Always Be Careful."
October—Fire Prevention.
"Fire is a Good Servant, but a Poor Master."
November—Health.
"The First Wealth is Health."
December—Safety in Indoor Play.
"Palaces of Safety are not Built of Stumbling Blocks."

January—Snow and Ice Accidents.
"Better be Safe than Sorry."
February—Snow and Ice Accidents.
"The Chance Taker is the Accident Maker."
March—Safety in Outdoor Play.
"Safety First, Last, and All the Time."
April—Safety in Woods and Fields.
"Recklessness is no Indication of Courage."
May—Safety in Streets.
"Look! Listen! Think!"
June—Safety in Vacation Sports.
"A Little Care Makes Accidents Rare."

Such in brief is the work done through our Pawtucket Teachers' Safety Council.

B6. METHOD OF ADMINISTERING SAFETY EDUCATION AT LYNN[1]

HARVEY S. GRUVER
Superintendent of Schools, Lynn, Massachusetts

To introduce a new subject into the public school program requires effort and planning. Teachers are naturally conservative and their educational thinking is largely determined by their training in normal school. Moreover, this conservatism has some justification because there is always someone who has something more or less deserving which he wishes to have introduced in schools.

The first problem, then, for those who are interested in promoting safety instruction in the public schools is to get their case before the teachers in so effective a way as to justify their proposals.

The *demonstration method* is one way to accomplish this end, and one that has proved its worth. The method involves the selection of one school to serve as a center for the exemplification of methods of teaching safety. The first demonstration center for safety education was established at Worcester, Massachusetts, two and a half years ago, when the writer was superintendent of schools in that city. The effectiveness of the work was at once recognized. Naturally, one is apt to be more impressed with a concrete demonstration than with mere verbal description, whether oral or written.

When it seemed necessary to introduce safety into the regular work of the elementary schools of Lynn, this same method was used. The Aborn School was selected to do the work for two reasons: it was large enough, having a staff of sixteen teachers and grades from one through six, to afford opportunities for wide variety in the work; and yet small enough so that the entire organization could be carried along in the endeavor.

It was also felt that the principal of this school met the requirements so necessary in an undertaking of this sort, for she was convinced of the worthwhileness of the endeavor, she had experience in organizing her school and making adjustments, and she had enthusiasm in abundance and the confidence of her teachers.

Another important factor is time. At least six months, preferably longer, is desirable for the preparation of a demonstration.

[1] Special acknowledgment is due to Miss Amelia Allen, Principal of the Aborn School, for contributing detailed examples of the work at Lynn.

The teachers of the Aborn School were asked to inject safety in all of its wider implications into the regular everyday work of the school, using every reasonable opportunity to color the elementary curriculum with the thought. They were asked to do this as intensively and for as long a time as they felt necessary to prepare a program to show visiting teachers that safety may be introduced as content into the regular curriculum without sacrificing the conventional subjects or overtaxing the teachers, and to show the educational value of the work which is reflected in the new interests, attitudes, and behavior of the pupils.

The superintendent of schools, through the coöperation of the Education Division of the National Safety Council, provided the principal with material on the subject, in order that she might become thoroughly informed of the scope of possibilities. A principal must have time to think over the problem in terms of school activities as well as to develop enthusiasm for the work.

In addition, the interest of the Health, Water, Police and Fire Departments, and of the Parent-Teacher Association, were enlisted and much valuable local data secured.

After the general scope and the possibilities of the program had been presented, encouragement was given the teachers to apply the principles adduced in any way they felt appropriate. It was really amazing how resourcefully the teachers and the children met this situation. Everyone had an opportunity, including principal, teachers, pupils, and janitor. While the demonstration was especially intended as a device for creating enthusiasm, an attempt was made to keep the attention upon the intrinsic value of the work, rather than upon the giving of the demonstration, itself. Everyone was imbued with the idea that the school was doing pioneer work in a field of vast importance.

In the month of May the 'high-water mark' of the work in the Aborn School was reached. It was then decided to invite principals and teachers from the other schools, and other interested persons as well, to see the work that had been accomplished. Two days, May 27th and 28th, were set aside for this special demonstration period. To continue longer than two days imposes too severe a strain upon those who are engaged in the enterprise, and the two days gave ample opportunity for all to visit the school without

congestion. Arrangements were made so that teachers could relieve each other, that as many teachers as possible might visit the Aborn School. A register of visitors was kept, which showed that 209 people visited the school during this two-day period. Every school was represented by at least two or three teachers, including the principal. Besides the local visitors a number of principals and superintendents from neighboring towns came to see the work. Representatives of the press inspected the work, which received excellent support from the local papers.

It should be borne in mind that, while all of the school work was 'colored' with safety during these two days, the regular class work was carried on, as on any other day. The following program, which was given to each visitor, shows this. A sixth-grade teacher would visit Rooms 7, 8, 9, 10; a fifth-grade teacher Rooms 11, 12, 13, 6, and so forth.

Safety Demonstration Program

Tuesday, May 27, 1924

Grade VI

	Room 7	*Room 8*	*Room 9*	*Room 10*
9:00	Geography	Music	Music	Arithmetic
9:30	Reading	Arithmetic	Arithmetic	Spelling
10:00	Language		Spelling	
10:50	Spelling	Geography	Language	Music
11:15	Hygiene—Play			Language
1:30	Arithmetic	Play		Penmanship
2:00	Play			Reading
2:30	Physical Drill	Physical Drill	Physical Drill	
2:40	Music		Talk	Play
3:00	History	Reading	Reading	

Grade III

	Room P	*Room P2*
9:00	Reading	Music
9:30	Penmanship	Reading
9:50	Arithmetic	Arithmetic
11:15	Spelling	
11:30	History	

	Room P	*Room P2*
1:30	Music	Spelling
1:45	Reading	Penmanship
2:00	Language	Language
3:00	Drawing	Drawing

Grade II Room 5

8:45 Morning Talks
9:00 Phonics
9:15 Reading
9:30 Play
9:35 Reading
9:50 Language
10:00 Lunch
10:30 Number
11:00 Free Time
11:10 Music

Room 5 (Cont'd)

11:25 Writing
11:40 History
1:30 Reading
1:45 Spelling
2:00 Reading
2:15 History & Poems
2:30 Composition
2:45 Play
2:50 Drawing

The safety teaching given at the Aborn School during these two days represented in some cases a whole term's or year's work under ordinary conditions. The work was presented in this concentrated form in order to give the visitors an opportunity to see the wide possibilities of incorporating safety in the regular everyday school work. The demonstration was in no way spectacular.

The visitors to the school were greeted by pupils who had been excused from their regular classes to serve as ushers. These children were chosen with special reference to their ability to meet strangers and to give proper directions. Each visitor was also supplied with the program which showed the type of work being done by each grade and room.

Every attempt was made to prevent too high a tension, both on the part of the teachers and pupils, and the work was carried on in as natural a manner as the circumstances permitted. The school merely served, and is still serving, as the center of influence for safety in the Lynn school system. While safety has now taken its normal place with other social subjects, it still holds the especial interest of the teachers and pupils of this school. During the past year a number of local teachers and teachers from neighboring towns, in need of inspiration and help in developing safety teaching in their own classes, have visited the Aborn School. Since the initiation of the work in May, 1924, safety teaching has permeated every school in the Lynn system. The schools have also been able to coöperate intelligently with the various local civic safety movements.

Examples of Work at the Demonstration Center

The following detailed examples of some of the work witnessed by the visitors are taken from the careful report of the proceedings prepared by Miss Amelia Allen, the principal:

Silent Reading

Grade I

1. Where do you live?
   On what street do you live?
   Have you a telephone?
   What is your telephone number?
   Write your telephone number on the board.
   Have you a father?
   What is your father's name?

2. I am tall.
   I stand in front of the school.
   I help you to cross the street.
   Who am I? (Mr. Gannon, traffic officer)

3. I look at clean hands.
   I look at clean faces.
   I help sick children.
   I wear a blue dress.
   Who am I? (Nurse)

4. I am yellow (or orange).
   Children put my skin in the basket.
   They eat me.
   What am I? (Banana or orange)

5. You ride in me.
   I say, Honk! Honk!
   I can run very fast.
   What am I? (Auto)

6. I am tall.
   I wear a blue suit.
   I help children when they get lost.
   Who am I? (Policeman)

7. I help sick boys and girls.
   Sometimes I give them medicine.
   I come to the house.
   I come to the school.
   Who am I? (Doctor)

8. *Signs.*
   Railroad Crossing
   Stop—Look—Listen
   Safety First
   Danger Ahead—Go slow
   Exit—Fire

Writing

Grade III

Safety Slogans

Teach the letters p and I
Write the following slogan:

It pays to play safe.

Teach the letters L and l
Write the following slogan:

Learn to live by learning to look.

Teach the letters A and w
Write the following slogan:

A word to the wise—use your eyes.

Teach the letters T and t
Write the following slogan:

Take time to be careful.

Geography

Grade IV

Subject: Safety on Eastern Avenue

One of the special features was a sand table, on which the children had mounted out of plasticene the section of the city in which the school is located. The work was correlated with geography, and the following hazards and safety devices were illustrated and discussed:

I

Precautions taken by the city or individuals

1. Floating bridge
2. Elevation of railroad tracks
3. Traffic officer in front of school
4. Fireproof shingles on church roof
5. Fire drill of school
6. New engine house proposed
7. Light on silent policeman near beach
8. Fence around stone crusher

II

Dangers to avoid on Eastern Avenue

1. Danger on the ledge (kite flying, rolling rocks, fire)
2. Danger at stone crusher
3. Danger from turning from side streets into Eastern Avenue in a machine
4. Trucks or machines backing out of garage or creamery
5. Danger in not obeying the traffic officer
6. Danger of gasoline and oil station

Grade V

A two days' plan for geography work in a fifth grade, B division.

Presentation:

We heard the Governor's proclamation for Arbor Day. When was it? What did the Governor urge us to do? Why do we need forests? Did the early settlers think the same about the forests as we do today? Let us talk over the value of the forests.

Grade VI

Geography of Lynn, with special attention given to location of ocean, harbor, beaches, ponds, and rivers

I

Topics for discussion

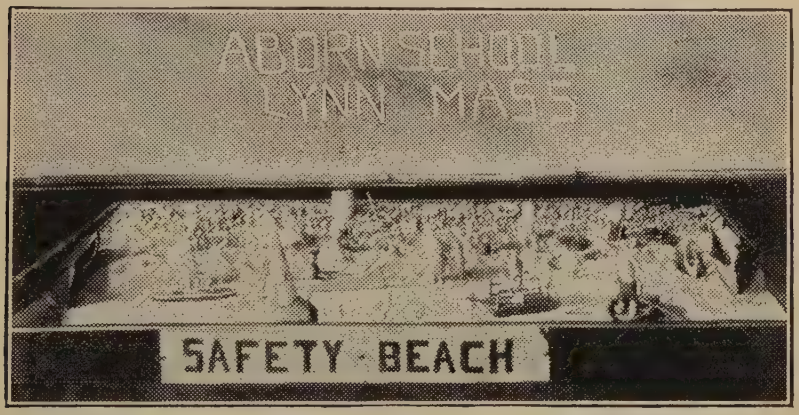
1. Boundaries
2. Size
3. Coastline
4. Points of compass and direction of neighboring cities
5. Locate Lynn Harbor, Lynn Beach, Kings Beach

6. Locate wards. In what ward do you live?
7. Name the ponds
8. Locate each pond on the map of Lynn
9. Describe appearance and uses of each pond
10. Trace the Saugus River
11. Industries
12. Busiest traffic centers
13. Population
14. Location of fire-engine houses
15. Locate parks, playgrounds, bath house

II

For future discussion

1. Safety of life and property
2. Safety in coastal, wooded, and agricultural regions



Model of Safety Beach Made by Pupils at the Lynn Demonstration Center

Physical Education

Grade VI

Subject: Physical Exercise based on Water Sports

1. Swimming
   a. Breast stroke
   b. Side stroke
   c. Overhand, or crawl
   d. Overhand side stroke
   e. Dog paddle
   f. Treading water
2. Hoisting a sail
3. Rowing
4. Paddling a canoe

History

Grade IV

Subject: Safety Measures in Massachusetts in 1624 and in 1924

I

Presentation: Assignment of the following subjects to different pupils several days before the lesson to prepare for recitation in class.

Topics for discussion:

1. Size, age, condition of Colony of Massachusetts in 1624
2. Health safety in Plymouth—need, lack, of knowledge, medical aid, etc.
3. Fire prevention—crude means—Indian fire arrows
4. Safety from Indians—forts, look-outs, high elevation, scouting parties
5. No need of traffic rules

II

1. Difference in time 1624-1924. Growth in population
2. Public health department
3. Board of health
4. Hospitals
5. Clinics
6. Doctors—specialists
7. Nurses—Red Cross
8. Traffic Rules
9. Police protection
10. Fire protection

History

Grade VI

The following and other similar topics were given to the pupils. They looked up their own material and wrote out short talks like those here shown.

Fire—Its Beginning.

In the early times fire might have been one of man's first discoveries. There are many ways that fire might have been started: (1) by lightning; (2) by volcanoes; (3) by rubbing two sticks together; (4) by using bow drills as did the Eskimos; (5) by flint and steel in later times. In 1827 matches were made by an Englishman named John Walker. They were called Congrieves.

Fire—Its Value.

The value of fire is unlimited. There are many values in fire as well as many dangers. Fire is valuable to keep people warm, to keep industrial plants running, to run locomotives, for cooking, and for burning rubbish.

Fire—Its Dangers.

Carelessness causes the many dangers from fire. Matches placed where children can reach them cause many fires. Lights near windows where curtains hang cause many fires also. Some other careless causes of fire are: overheated stoves and lamps; barrels with hot ashes; oily rags left lying around, rubbish allowed to collect in cellars and attics, and careless smoking habits.

Civics

Grade VI

Subject: United States Coast Guard Service

The duties of the coast guard are as follows:

1. Assistance to vessels in distress
2. Remove wrecks, derilects, and other floating dangers
3. Extending medical aid to fishermen
4. Save life and property
5. Protect game
6. Laws and regulations
   a. Enforcement of law governing anchorage in navigable waters
   b. Enforcement of laws to provide for the safety of life on navigable waters during regattas and marine parades
   c. Protection of seals and game and other fisheries in Alaskan waters
   d. International ice patrol in the vicinity of Grand Banks, off New Foundland

Coastal Communication:

A few ways of keeping in touch with other stations. Some stations have a coastal telephone system. All except two stations are now furnished with telephones or telegraphs. Radio is now used very much in the coastal stations.

Beach Patrol:

The Coast Guard beats are fixed or laid out in patrols. They may be three, four, or five miles apart. The crew is divided into regular watches. The beaches are patroled from sunset till sunrise. The first watch is from sunset to eight P.M.; the second watch is from eight P.M. till twelve A.M.; the third watch is from twelve A.M. to four A.M.; and the fourth watch is from four A.M. till sunrise. From sunset the first man starts out, while his watchman takes the station watch which is in a tower abreast the station. If the station is connected with telephone, the man on patrol has a pocket phone.

Subject: Laws for our Safety and Protection

1. Ponds used for drinking water are posted with signs prohibiting bathing, boating, or fishing.
2. Boats or canoes cannot be let to minors.
3. Metropolitan Park Commission has charge of Lynn Boulevard. There are signs which warn people not to speed in autos, warn against ball playing on the beach, and against throwing rubbish or glass on the beach.
4. Federal Government maintains a Life Saving Station at Nahant.
5. Ships carry life preservers, radio, and so forth.
6. Federal Government maintains a Weather Bureau which gives storm signals to ships at sea.

Language

Grade I

Original Stories

I am a flame. Do not come near me.
I am a flower. Let me grow.
I am a button. Do not put me in your mouth.
I am an auto. Look out for me.
I am an electric car. Do not hop on me.
I am a pair of scissors. Don't run with me.
I am a hot stove. Do not touch me.
I am a pointed stick. Do not run with me.
I am a sharp rock. Do not throw me at any window.
I am a hot iron. Do not touch me.
I am a pail of hot water. Do not come near me.
I am a horse. Do not come near my feet.
I am a piece of glass. Do not handle me.
I am an umbrella. Do not hold me down when you cross the street.
I am a truck. Do not run in front of me.
I am a kettle of hot water. Do not put your hands in my steam. I will burn you.

Grade IV

1. The "Doesn't" Game. Each child gives a sentence telling something that his mother or father doesn't want him to do. For example: "My mother doesn't want me to carry matches in my pocket."
2. The "Was it You" game. The child starting the game gives some such sentence as "I saw a boy lighting matches yesterday. Was it you, John?" The pupil called on says, "No, it was not I." He goes on in turn. Questions may be asked that require the answer, "Yes, it was I."

3. The "Don'ts." Assign to each row a subject such as "Don'ts of the Schoolroom;" "Don'ts of the Home;" "Don'ts of the Playground." Each child gives a sentence on the subject assigned his row, as "Don't run before you look."

Grade V

A Dramatization by the Pupils of Grade Five, Room 12
"The Fairies Hold a Safety Court"
(Abridged)

Time: Present

Place: In the forest

Characters: Elf King, Fairy Queen, Dwarf, Boys, Girls

The Fairy Queen and the Elf King hold court under a large oak.

Elf King: Tonight we are to hold court in this grove. My dwarfs are bringing in all the careless boys and girls of the town. We shall try to teach them a lesson in carefulness.

Dwarf: (enters and bows before the king) The boys and girls are here, your Elfin Majesty. It was easy to work to get them. Almost every step I took there was a boy or girl doing something thoughtless.

Elf King: Bring in the most careless of these, first. (Dwarf goes and reappears with boy who looks slightly sullen and frightened.) What have you been doing?

Boy: I found a couple of matches and thought it would be all right to light them and watch the flame. It didn't do any harm.

Elf King: What is that little hole in your coat? It looks to me like a burn.

Boy: Why, that's odd. I never noticed it.

Fairy Queen: That's just it. Would this fun be worth while if you were severely burned? Most fires are caused by the "Didn't Thinkers." A tiny gas flame near a blowing curtain may burn a house down. A tiny match thrown carelessly in a forest road may be the cause of thousands of dollars loss of lumber. Do you realize that a careless person who goes into a closet with a lighted candle may cause a burning home or apartment? Do you know through just such tiny bits of carelessness hundreds of lives are lost every year?

Boy: Yes, now I see how dangerous it is to play with fire.

Elf King: To help you remember the danger of fire, we'll send our good fairy back with you to stay until your foolish habit is broken. Every time you touch fire unwisely the fairy will prick you severely. Now you may go. My fairy will follow you.

Dwarf (enters with little girl): Your Majesty, I found this girl playing in the street this morning.

Queen: Do you know, little girl, that many children have been killed or badly injured by playing in the street? How would you like to spend the rest of your life walking slowly with the aid of a crutch?

Girl: I should not like to, but no auto was coming when I was playing in the street.

Queen: When you are interested in your game, autos might come before you see them. Even if you did escape, think what a bad example you are setting for other children. They will play in the street, too. What have you to say to that?

Girl: You have taught me a lesson which I shan't forget. I will try my best to keep other children out of the street.

King: I think that you will remember and will not need a guard.

[The next culprits are a boy who ran with an open knife and two girls who threw banana peels into the street]

Dwarf: Here is a boy, your Majesty, who likes to hop on the back of trolley cars and trucks.

King: Is this true, my lad?

Boy: I've never got hurt and it's great fun. Why, this afternoon I hopped on the back of a car and then a truck and rode all around the city.

King: Did your chum, Peter, go with you?

Boy: Oh, no, Peter's sick.

Queen: What's the matter with Peter?

Boy: He hurt the cords in his knee and his leg is so stiff now that he walks very slowly. (Hesitatingly) He was—one day—he—Well, one afternoon—

Queen: I think that we know the answer. Peter was doing just what you confess that you like to do.

Boy: Yes, that is true.

Queen: But, of course, Peter doesn't mind, does he? He really never wanted to play on the basket or baseball team at school, did he? He didn't care about being as straight and well formed as the other boys, did he? He had much rather be a lame boy and walk slowly with a crutch and finally grow up into a lame man whom other people are always pitying. Isn't that true?

Boy: Oh, no, Peter hopes with all his heart to get better.

King: You have proved to the court that you are a silly and foolish boy. Your chum, Peter, has been badly hurt and yet you have not the sense to stop doing the same thing. I shall send my dwarf, "Fear," home with you. When you are again tempted to do anything unwise, he will remember it many a day.

[We omit the boy who climbed a telephone pole and the girl who danced about in a boat.]

King: Now, all of you listen to some words of advice. We have tried to make you see the folly of your ways. In most cases I think that you will remember that a careless person not only endangers his own life but the lives of others, also. My watchmen—Conscience, Good Judgment, Common Sense, Duty, and Thoughtfulness will have you in their care. The sun is rising. Farewell.

Grade VI

Original proverbs made up by the pupils

Never leave Safety for tomorrow for you can use it today.
Nothing is lost on a journey by looking both ways.
A fine auto doesn't always have a safety driver.
Better be careful and free than careless and a captive in bed.
Do not blame others for carelessness 'till you have learned safety yourself.
A good example is the best way to teach safety to little children.

I. Talks on Safety
   1. How to get off a street car correctly
   2. How to cross the street correctly
   3. How to care for and put out a camp fire

II. Fables: Suggested Titles given by Pupils
   1. "The Boy and the Matches"
   2. "The Horse and the Truck"
   3. "The Man and the Driver"

III. Recitation by Class of Safety Creed Made by Them

Our Safety Creed

"I believe in preventing accidents in the City of Lynn. I believe that this can be done by being careful, by being thoughtful, by obeying the traffic policeman and others.

"I, therefore, believe it is my duty to my city, as a citizen of Lynn, to do this.

"On my honor as a citizen of Lynn, I promise to try to do my best to carry out this creed."

In connection with the Forest Region in their geography work, the children found many interesting plans carried on by the United States.

For that reason the children were given an opportunity to read the part which interested them most, and then later to make a report on what they read, to the other boys and girls in the class. (Details are omitted for want of space.)

A Debate

The following topics were suggested by various children for debate: (1) That all vehicles should stop before crossing railroad tracks; (2) That dogs that chase automobiles should be kept tied up; (3) That children should be allowed to play in the streets; (4) That children should not be allowed to carry firearms. The third received the greatest number of votes.

Two sides were chosen. Each side worked separately. The following is the outline of the debate as it was given in class.

Resolved: That Children Should be Allowed to Play in the Streets.

First Affirmative:

Children must play.

They need exercise.

There are too few playgrounds in the city, so let the children play in the streets.

First Negative:

The first speaker on the affirmative has said that children must play. I agree with him heartily. However, I maintain that they need not play in the streets. The streets are public highways, not playgrounds.

Second Affirmative:

To be sure, streets are public highways. However, it should not be necessary for children playing in the streets to be killed. *Carelessness* is the cause of most street accidents.

Second Negative:

Carelessness is the cause of street accidents. But, it is usually carelessness on the part of the children, rather than on the part of the drivers of vehicles. Children do not watch for traffic. Let children play in their yards or on the playgrounds furnished by the city.

Third Affirmative:

In the crowded part of the city there are few yards that are large enough for children to play in. Further, many playgrounds are too far away from the homes of the children.

Third Negative:

It is better for children to go a distance to the playgrounds than to risk the danger of being killed in the streets. In addition, as long as parents are content to allow their children to play in the streets, the city will put off laying out playgrounds.

Fourth Affirmative:

Street accidents happen to other people besides children. As long as the city does not furnish playgrounds, let them furnish extra traffic officers to care for the children playing in the streets.

Fourth Negative:

In final argument, let me say: First, streets are public highways for traffic; Second, playgrounds are for children. As the traffic keeps off the playgrounds, so let the children keep off the streets. So long as children play where they should, the danger is lessened 100 percent.

Arithmetic

The following problems were made up by the pupils of the sixth grade.

1. A swimming pool is 60 feet long and 40 feet wide. How many yards does a boy or girl swim in going its length 6 times? In swimming across it 8 times?
2. How many times it is necessary to swim the length of the pool to make a record of 100 yards? To make a record of ¼ of a mile?
3. What is the perimeter of the tank in feet? In yards? In rods?
4. Use a scale of ⅛ of an inch to a foot, and draw a rectangle to represent the top surface of the tank.

Table of Deaths from Drowning in the United States

Year	Males	Females	Total
1915	8117	1533	
1916	7795	941	
1917	6612	830	
1918	6006	945	
1919	6302	916	

5. From this table find the average number of males drowned in a year.
6. For five years, were there more males or females drowned? How many more?
7. Find total number of drowning accidents each year.
8. The total number drowned in 1919 is what percent of the number drowned in 1915?
9. The fire loss in the U. S. in 1922 was $521,000,000. Forty percent was due to carelessness. How much was due to carelessness?
10. In 1922 there were burned 211,000 dwelling houses at a loss of $64,150,474. What was the average loss per house?
11. On the fourth of July, $9,431 worth of damage was done by fireworks. The same year $48,465 was lost at fires caused by rubbish, and $2,331,415 at fires caused by matches and smoking. What was the total loss caused by these three?

C. QUESTIONARY CONCERNING THE STATUS OF SAFETY EDUCATION IN THE PUBLIC SCHOOLS

RUTH STREITZ
Fellow in Safety Education, Teachers College, Columbia University, New York City, New York

In order to obtain adequate information concerning the extent to which safety education prevails in the elementary and high schools of the United States, the following questionary was sent to 780 superintendents of schools in cities of 10,000 population and over, scattered over a wide area of the country.

THE QUESTIONARY

The National Society for the Study of Education will issue and discuss at its February, 1926, meeting a Yearbook on *The Present Status of Safety Education.* In that connection it would be helpful to learn approximately to what extent the teaching of safety is now carried on in the schools. Will you kindly coöperate by checking this questionary and mailing it before September 20th in the envelope enclosed for that purpose?

City..... State..... Date.....

Superintendent.....This reply by.....

1. Is safety instruction given in your elementary schools? Yes ( ) No ( )
   If so,
   A. Has it been introduced voluntarily ( ) or because required by law ( )?
   B. Check the method or methods used in presentation:
      (1) Make a portion of regular school subjects ( )
      (2) Taught as separate subject ( )
      (3) Carried on by school organizations, like junior safety councils, civic clubs, etc. ( )
      What grades included in such organizations? (.....)
2. Is safety instruction given in your Junior high schools? Yes ( ) No ( )
   If so, which of the methods just cited is used? (.....)
3. Is safety taught in your senior high schools? Yes ( ) No ( )
   If so, which of the methods just cited is used? (.....)
4. Add any remarks that will make your replies clearer.....
5. What is your general opinion of safety instruction, with respect to its importance and with respect to the results secured in your schools? Comment will be welcomed.

THE STATISTICAL RESULTS

The 312 replies that were received have been tabulated with the following results:

1. Is safety instruction given in your elementary schools. Yes, 293; No, 19

A. Has it been introduced voluntarily? Yes, 275; By law, 14
B. Check the methods used in presentation:
   (1) Made a portion of the regular school subject, 206
   (2) Taught as a separate subject, 82
   (3) Carried on by school organizations, like junior safety council, civic clubs, etc., 125
   What grades included in such organization?

Grades 1-8,	121
Grades 1-6,	43
Grades 3-8,	21
Grades 6-8,	23
Total,	208

2. Is safety instruction given in your junior high schools? Yes, 215
   If so, which of the methods just cited is used?
   (1) Made a portion of regular school subjects, 129
   (2) Taught as a separate subject, 27
   (3) Carried on by school organizations like junior safety council, 64
3. Is safety taught in your senior high schools? Yes, 143
   If so, which of the methods just cited is used?
   (1) Made a portion of the regular school subjects, 85
   (2) Taught as a separate subject, 17
   (3) Carried on by school organizations like junior safety council, 37

Comments Upon the Results

The teaching of safety in the elementary schools. In answer to the question: "Is safety instruction given in the elementary schools?" 293 replied in the affirmative and 19 in the negative. It is evident that this question was not interpreted by all alike, as a number reported that safety instruction was not given in their schools, while civics, health, or hygiene was taught. Others stated that a specific place was not accorded safety in their already overcrowded curriculum, but there was some incidental teaching of safety, etc. Though it may be assumed that nearly all of the schools are teaching some phase of safety, the replies to the questions have been reported exactly as they were received.

Introduction of safety education. According to the replies received, safety instruction has been introduced voluntarily in 275 schools, and because required by law in 14. Here again, the data are not exact. In the same state where safety is required by law, reports also indicate that it has been introduced voluntarily. Others stated that they had introduced safety before the law was enacted and therefore answered in the affirmative to both questions!

Methods used in teaching safety. Of the three possible answers relating to the method of teaching safety education in the elementary school, 206 replied that it was made a portion of their regular school subjects—that is, it is incorporated in their language, civics, health, and other subjects. Eighty-two reported that it was taught as a separate subject, on a schedule, like any other subject. One hundred twenty-five indicated that their safety work was carried on by school organizations, like the junior safety council, civics clubs, etc.; 81 of this number also reported a combination of this method with inclusion in the regular school subject and 29 that it was combined with the separate teaching of the subject. "What grades included in such organizations?" was misunderstood. By the arrangement of the questions it is not clear whether this applies to grades in which the school organizations carry on the safety work or to grades in which safety work is organized. Judging from the replies, the majority of superintendents thought the question related to the grades where safety is taught. Where the reply was "all grades," it was interpreted as meaning the eight grades of the elementary school, not including kindergartens unless so specified. Seventeen state plainly that the work is included in the kindergarten.

Safety education in the junior high school. Safety education is given in the junior high school in 215 school systems. The method of teaching varies greatly. Twenty-seven report that it is taught as a portion of the regular school subjects; in addition 129 report that it is taught in connection with specific subjects, such as civics, physical training, geography, or in assembly periods, lectures, talks, etc., while 64 state that the work is carried on by various school organizations.

Safety education in the senior high school. The greatest variation yet is shown in the teaching of safety in the senior high school.

One hundred forty-three report that it is taught, 85 as a portion of the regular subjects, 17 as a regular subject; 37 that it is carried on by various school organizations; a number that it is taught incidentally—that is, through talks, lectures, assembly periods, citizenship classes, etc.

General opinion of safety education. An attempt was made to classify the comments under the following headings: (1) The need of safety education; (2) The value of safety education; (3) Suggestions as to how safety education should be taught; and (4) The results of having safety education taught in the schools.

(1) *The Need.* Of course, there is much overlapping in the replies, but in a general way the following phrases expressed the need for safety education. "A good thing," 10; "Valuable," 14; "Essential," 13; "Necessary," 27; "Important," 73; "Worthwhile," 15; "Want it," 20; "Helpful," 2.

(2) *The Value.* Safety education was thought by 20 to produce better habits, by 17 to aid in a better attitude toward law and the rights of others. Several thought safety gave an excellent opportunity for student participation in the activities of the school and provided a foundation for club work. One said that the work was especially valuable to the foreign born. A number reported that the work was very good as carried on in the lower grades, but did not mention the work in the upper grades.

(3) *Suggestions for Teaching.* That the subject of safety should receive regular instruction in the public school was the opinion voiced by 29; that it should be taught (but no mention made as to how it should be taught) by 16; taught with other subjects, by 33; incidentally, by 8; introduced by means of talks, by 5; in auditorium or opening exercise periods, by 3; in connection with motor clubs and safety councils, by 15. Four said the work did not 'carry over;' four do not want the teaching required by law. Nineteen are preparing to extend their present plans for the teaching of safety education.

(4) *Results Achieved.* Seventy-two school superintendents felt that the time and energy devoted to safety instruction were justified in the results obtained. Others admitted that they could not produce statistics as proof of their opinion, but were confident that

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safety instruction had produced results in their city. A few were pessimistic; one said: "Results in school are negative, owing to the practice of the public." Others regard the work as "very important, but depends entirely upon the teacher or principal," etc.

The following quotations will illustrate characteristic reactions of school administrators toward safety education: (1) "Important but need more time for regular school subjects." (2) "We want safety education, but where shall be put it." (3) "It is a good thing, but how much gets over into conduct?" (4) "Safety instruction should be in every school." (5) "My observation leads me to believe that safety instruction in the public schools is very effective. As I observe the conduct of the children on streets and highways, I am sure that much good has been accomplished." (6) "Safety in this age is a vital necessity in our schools. Those school systems that neglect it are derelict of performing their duty to the public and to the children." (7) "It is important and is entitled to a fair share of school time." (8) "I believe that traffic in our cities is such to-day that safety instruction is mandatory. Years ago we thought that crossing railroad tracks to or from school was something to be avoided. To-day the average city crossing is much worse than any railroad crossing." (9) "Important—it will be most effective only when instruction combines with formation of *habits* of safety, and when in some way we can check, or 'inhibit,' what we may call the almost 'instinctive' tendency of children to dash thoughtlessly into the path of possible or actual danger." (10) "The term 'Safety First' is a misnomer—it obscures the real instruction needed which should bring such an understanding of modern dangers that safety would result. It often results in a mistaken approach by teachers—pupils are not interested in anything so pusillanimous as safety *per se*." (11) "Such instruction represents concrete service to the community and also adds to the value of the special subject in which it is used as a project." (12) "We believe that safety instruction is important and that it carries over into actual life situations."

Additional information was sought by sending a follow-up letter to superintendents asking for the estimated time allotted for safety instruction in the primary, intermediate, junior high school and senior high school. The response was so meager that the data are

of little value. Some reported the time given to safety in minutes per week, others in minutes per month and some did not even state the time in either periods per week or month.

All that can be said is that the time given to safety instruction seems to be increasing. However, two reported that it was decreasing and two that there was no change.

In the main, the initiation of the safety work in the schools is due to the "increasing traffic dangers, work of the Safety Council," and increasing interest on the part of school officials and teachers.

CHAPTER VI

COURSES OF STUDY AND METHODS IN SAFETY EDUCATION: ELEMENTARY SCHOOLS

THE SPRINGFIELD TENTATIVE COURSE OF STUDY IN SAFETY EDUCATION

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FOREWORD

It is the purpose of this section of the Yearbook to outline possible subject matter to be incorporated in a course for the elementary schools and to illustrate, by classroom reports, methods of teaching it.

It is organized about certain fundamental objectives for each term which, if rightly taught, should produce desirable attitudes toward safety.

It aims to inject the idea of safety into all the subjects of the curriculum with which there is an apparent relationship; for example, such classroom work as appears in the first-grade report shows a correlation with reading and language; reports of the fifth grade illustrate a correlation with nature study and geography; those of the sixth grade show a correlation with studies of civic organizations.

There are as yet no objective evidences of the worth of this course. Its worth can be determined only by the intelligent and successful behavior of children in dangerous situations. The length of time it has been in use is far too short for any reliable check on effective learning. It has taken years to develop techniques in arith-

metic, spelling, and reading, and yet any one will admit that these techniques can be improved. The development of method in this field can result only from a thoughtful analysis of situations; a statement of desirable changes to be made in habits and attitudes of pupils; experimentation freely with various possible ways of teaching to bring about these changes; and the development of some means of checking results. Any definite and reliable statement of its worth cannot be made until all these things have been accomplished.

The question of the relative value of negative and positive methods of teaching has been raised. Certain statements in the course may be interpreted to be illustrative of a negative method. It has been the intention to set up certain definite objectives; such statements as appear in the outline for Grade V—A and B, under Section I, do not indicate a negative method of procedure, but a statement of objectives to be attained through positive methods of teaching.

Grateful acknowledgment is expressed to the following persons who are responsible for the development of the Tentative Outline:

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Mr. Wellington Hodgkins, Myrtle Street School
Miss Helen V. Buguey, Central Street School
Miss Margaret P. Higgins, Buckingham Junior High School
Miss Mary C. Welch, Barrows School
Miss Hazel M. Hunter, East Union Street School
Miss Olive K. Horrigan, White Street School
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KINDERGARTEN AND GRADE I

The general aim of the instruction in safety education for these grades is to help parents to keep the home safe, following the slogan: "A safe home is a happy home." Consequently, in the selection of subject matter we have drawn largely from family life and the home. In addition, the problem of safety on the way to and from school presents a difficulty that is serious for children of this age.

I, 1. Outline of Subject Matter

A. Safety in the Home

1. Put away playthings.
2. Straighten the rugs, so mother will not trip.
3. Keep off stairways while playing.
4. Pick up pins, needles, and victrola needles. Put them into a safe place.
5. Learn how to carry sharp or pointed articles (scissors, lollipops).
6. Sit; don't stand in rocking chairs.
7. Keep away from pans, tubs, and pails of hot water.
8. Keep articles from mouth, ears, and nose.

B. Safety in Health

(Illustrated under I, 4)

1. Keeping clean.
   a. Bathe.
   b. Wash hands before eating.
   c. Keep fingernails clean.
   d. Keep fingers out of mouth.
   e. Brush teeth.
2. Going to bed early.
   a. Open windows.
3. Chewing food slowly and thoroughly.
4. Using handkerchief for coughing and sneezing.

C. Safety in Going to School

(Illustrated under I, 5)

1. Crossing the street.
   a. Cross at crosswalk.
   b. Stop, and look both ways before stepping into street. Wait for clear space if no officer is near.

c. Watch the traffic officer.
d. Obey the traffic officer.
e. Learn safety signals—"Stop," "Go."

2. Keeping on sidewalk.
   a. Refuse rides from strangers.
   b. Avoid running after balls, hats, etc., which have fallen or blown into the street.
   c. Pick up fruit peels and place them in proper receptacles.
3. Learning to say the following plainly and correctly:
   a. Full name.
   b. Address—street and number.
   c. Father's name.
   d. Mother's name.
   e. Name of school.

D. Safety in Play

1. The public playground is the safest place to play.
   a. Use apparatus in the right way.
   b. Use of the playground pool.
      Wading.
      Sailing boats.

E. Causes of Fire

1. Playing with matches.
2. Hanging clothes near the fire.
3. Lamps, gas, fireplace, open grates, and stoves.
4. Birthday candles, Christmas trees, Halloween, fireworks, and bonfires.

F. How to Help in Case of Fire

1. Keep out of the way.
2. If your clothing catches fire, wrap yourself in rug or blanket, and roll over and over.

The following teaching units (I, 2 to I, 5) are illustrative of the methods which have been employed in the use of the Springfield Tentative Course in Safety Education. These teaching units are reports of work which has been done in the Springfield schools.

I, 2. Building a Safety Home

A. Subject Matter

1. Safety house.
   a. Basement and stairway.
      Metal containers.
      Stairway railing.

b. Kitchen.
Note: In constructing the kitchen avoid using any dangerous material, such as matches.
Fire.
Matches.
Stoves, coal, gas.
Hanging clothes away from fire.

c. Dining room.
Wash hands before eating.
Handle knife and fork carefully.
Select nourishing food.
Chew food slowly and well.

d. Bedroom.
Keep clean and orderly.
Admit fresh air and sunshine.

e. Bathroom.
Bathe regularly.
Keep teeth clean.

f. Living room.
Keep toys off the floor.
Pick up pins, needles, etc., which may fall on the floor.
Straighten rugs.
Avoid climbing on chairs.

2. A safe yard.
a. Clean and orderly.

B. Method

1. Constructing the home.
(Construct home using floor blocks.)
2. Play house.
The play activities made use of each room. The children reproduced the life of the home, *e. g.*, putting the baby (doll) to bed before going home from school.
a. Undressing the baby.
b. Washing the baby.
c. Brushing the baby's hair.
d. Putting on night dress.
e. Putting the baby to bed.
f. Opening the window.
3. During the building of the home, language, reading health lessons, and hand work center around home activities.

I, 3. Stenographic Report of Kindergarten Session, Washington School

Miss Mary Daboll, Principal; Miss Margaret Garrett, Director of Kindergarten; Miss Dorothy Kenyon, Kindergarten Assistant.

In taking this report, neither the children nor the stenographer knew that its purpose was to see *to what extent safety habits were being developed in the regular activities of the day.*

Two periods are included in this report: (1) Work period—children given opportunity for choice of activities; (2) Discussion of work accomplished during the above period.

Miss G, teacher; Miss K, assistant; Miss A, stenographer.

A. Work Period

As Miss A. entered the room, groups were busily engaged in various activities. This was a period when the children chose their own work. A boy was making a church with building blocks; another boy was standing by, ready to help. Three girls were playing house, *i. e.,* dressing and rocking dolls, and later having a tea party. Two groups of boys and girls were sitting around tables drawing, coloring, and cutting Halloween decorations. A group of girls were making clothes for dolls. Three boys were at the work bench. One of the boys was making a table, using nails and a hammer. A boy was standing near him, ready to help when needed. Another boy was making a bench, using a saw. The wood was held in place by a vise.

Miss G., to boy who was sawing wood: "If any of the children get in your way, what are you going to tell them?" John: "Please get out of my way." Miss G.: "You have the back and seat, haven't you? Now, what are you going to make next? Is your bench finished?" John: "It hasn't any feet."

The boy making the table put pencil marks where he wanted to drive the nails. One boy held the table, while the other drove the nails. It was quite noticeable how careful the boy was while using the hammer. He was very interested in his work and said to Miss A.: "My wood is solid."

Miss G. helped the boy saw wood for his bench by starting the sawing for him. A boy by the name of Charles was standing quite near the saw. Miss G.: "Is Charles in the way?" Charles immediately moved away from the saw.

Miss K. had picked up a threaded needle from the floor under the table where the girls were sewing. She held it before the girls and said: "I see some things I don't like. Where should this be?" Girls: "In the box." Miss K.: "What might happen if you left

it under the table?" Mary: "If a baby comes, it might crawl under the table." Miss K.: "What would happen if the baby did crawl under the table?" Mary: "It might hurt itself."

B. Discussion of Work

Miss G. struck a chord on the piano for the children to stop their work. "I want the children who made things that they want to save or show to the children to bring them here. Take care of what you worked with, and when you are through, come and sit down."

Miss G.: "All the girls who were sewing, come here. I don't think you were very careful. Harold just found this on the floor. What is it?" Children: "A needle." Miss G.: "What might happen if we left the needle on the floor?" Alice: "If it were at home, a baby might crawl on the floor and get hurt." Miss G.: "Yes, but think of all these people sitting here!" Alice: "We might get hurt ourselves." Miss K.: "I wonder if Harold knows where the needle belongs." Miss G.: "Harold, you take care of it. Now suppose you look all over the floor to see that there are not any more pins and needles on it."

Miss G.: "Harold, I looked at the church and it was very good. Now you may go and put the blocks away. Roger, you go and put your blocks away, too."

Miss G. asked three boys to put the tables down: "If anyone is in the way, ask him to please look out." The boys were putting the chairs away as quietly as possible. Roger discovered several chairs in the center of the room. For the month Roger had been in school, he had volunteered no remark. Suddenly he said: "Well, for the love of Pete! Who left these chairs here?" He immediately took command of the situation, directing the other children, until every chair was in its place. Miss G.: "Why do we want all of the chairs out of the middle of the room?" Roger: "Because I don't want them in the way." Miss G.: "You know, I am so glad Billy did not put chairs in front of the door. Why do we not like that?" Susie: "Someone might be sitting there and get bumped." Miss G.: "That is very true."

Miss G.: "You know, we have some very nice things to talk about to-day. Lincoln had to take his church down. You went

into the church door, and you could go right through the church and out another door. It was one of the nicest things we have made."

Miss G. showed the class pictures of pumpkins some of the children had made and asked what they were, and what they all were getting ready for. Children: "Halloween."

Miss G.: "Here are the dolls the girls have dressed." She held up one doll with dress and coat. "I did not see this. It's a coat, isn't it? I thought you were all making dresses and here Elsa made a coat! I like it very much. She turned the hem in twice all around!" Miss G. asked what was the matter with a certain dress that was too large, it being very evident that it had not been cut by a pattern. "You know, if you take your doll and lay it on the table, you will see just how much you need for a dress. If you will make a paper pattern first, and then cut your cloth, it will fit better." The children examined the dress, showing where it was too large. Miss G.: "You know, I saw something I did not like to-day. What did you find, Harold?" Harold: "A needle." Miss G.: "Why did you pick it up?" Harold: "Someone might step on it."

Miss G.: "Should you like to tell a story about being careful in kindergarten?" Jane: "If you were sitting down, there might be some scissors, and they might stick into us then." Miss G.: "That's right. What should you do with the scissors?" Jane: "Put them where they belong." Miss G.: "Harold, will you take those scissors and show us how to pass them to the children?" He passed the scissors to Billy, with the point toward him. Billy: "You pass the handle to others." Miss G.: "Yes. Why do we do that?" Billy: "So they will not get cut." The scissors were then passed from one child to another until all understood the proper way to handle them.

Miss G.: "There's something else here in kindergarten we have to be careful about, too. What is it?" Children: "The saw. You must not go around the saw." Miss G.: "You must not go around the saw nor the work table when someone is sawing. What do we do when we get through with the saw?" Bessie: "We put it right into the cupboard, so no one will get hurt with it." Miss G.: "Where is it now?" Bessie: "In the cupboard."

Miss G.: "I would like to hear something more about that work bench." Anna: "You want to be careful about the nails." Miss G.: "If you do find nails on the floor, what are you going to do?" William: "Put them into the nail box." Tom: "Be careful of your own fingers, so you don't hammer them." Miss G.: "What are we going to do when we saw the wood?" Raymond: "Put it in the vise." Miss G.: "Yes, put it into the vise and have it good and tight."

I, 4. Safety in Health

From the Acushnet Avenue School, Kindergarten and First Grade
Miss Alice E. Ramsdell, Principal; Misses Alice F. Howland, Edith F. Gould, Helen F. Moulton, Teachers.

A. Situation

Acushnet Avenue School is situated in a district where there are many foreign-born children. Last year a health project was carried out in this school. All children in the building took part in this program. The outcomes were of such positive value as to warrant our initiating a similar program in the kindergarten and first grades this year.

The following is a record of these activities:

B. Problem—How to Establish Health Habits with These Children

1. Cleanliness.
   a. Hands, face, nose, head, teeth, nails, and bath.
   b. Clothing.
2. Food and drink.
   a. Nourishing food.
      Bread and butter.
      Cereals.
      Fruit.
      Vegetables
   b. Drink.
      Milk.
      Cocoa.
      Water.
   c. Exercise.
      Outdoor play.
   d. Sleep.
      Eleven hours.
      Sleep alone.

e. Clothing.
   Child's night clothing.
   Bed covering.
f. Open windows.

C. Gathering Material

1. Materials.
   a. Wood for making furniture.
   b. Dolls brought by children.
   c. Schoenhut dolls furnished by school department.
2. Materials brought in by children.
   a. For poster work.
      Magazines.
      Pictures.
   b. For sand table.
      Toy train.
      Oranges.
      Potatoes.
      Milk bottles.
      Oatmeal.
      Tooth brush.
      Glasses.
      Bath tub.
   c. Cloth for doll's clothing and rugs.

D. Organization

1. Plans with children.
   a. Choosing.
   b. Discarding.
2. Groups.

E. Carrying Out Plans

In order to form good health habits with the new children, we decided to construct in both kindergarten and first grade two rooms —a bedroom and a bathroom—which should be the home of a doll to be cared for by the children.

The walls of the rooms were constructed of Sheetrock and papered—the bedroom with brown oatmeal and the bathroom with washable tile paper. The children of the kindergarten constructed the furniture for the bedroom. This furniture was the right size for a sixteen-inch doll. They made two rugs for the floor—a braided one and a woven one. The furniture for the bedroom in

the first grade was constructed by the grade auxiliary (atypical) boys and was large enough for a six-year-old child. The bedding was made by the second-grade children and fifth-grade girls. Each bathroom was furnished with tub, stool, table, towel rack, and mirror. The floor was covered with a Congoleum rug.

Children had been bringing in their dolls, and they asked that they be allowed to leave them over night. When the rooms were ready, we chose a doll that should occupy the room for a week at a time.

The question arose: How shall we care for baby? The children said: "Mother cares for baby at home and sometimes sister helps." "Why can't we be mothers and sisters?" A little boy asked: "Can't we be daddies?" This work of caring for the house and doll was carried on by groups. One group did the work for two days in the kindergarten and one group for a week in the first grade. The leader of the group acted as mother and chose her helpers.

Our next problem was to decide what needed to be done for the doll. "What does mother do for the baby in the morning?" Children decided that the doll should be bathed and dressed in clean clothes. Her teeth should be cleaned and her hair brushed. Since the dolls brought in by the children could not be washed, Schoenhut dolls were furnished by the school department. "What shall the doll be named?" Kindergarten children chose "Priscilla" —the first grade children, "Gloria."

"Now Gloria is ready for breakfast. What shall we give her to eat?" Discussion by the teacher and children. Children in the first grade decided that, since Gloria is three years old, she should have for her breakfast, orange juice, cereal, toast, egg, and milk. As the kindergarten doll is a baby, breakfast was not discussed.

"What does little sister like to do after breakfast?" Children say she wants to play outdoors. Every child should play out of doors part of every day. First-grade doll goes out to play with toys. Kindergarten doll is taken for a ride in the carriage.

Little mother and sister do the housework. They make the bed, which has been properly aired; sweep and dust the bedroom, and clean the bathroom.

Before dismissal, the children were asked what should be done with the doll for the night. She must be put to bed. "What must

THE MORNING BATH

KEEPING HOUSE

be done for her before she goes to bed?'' She must be undressed, washed, and her teeth must be cleaned. Then her nightgown must be put on, and mother always tucks her in. The very last thing is to open the windows, because little children should sleep long hours with windows open.

After little mother has put her child to bed, she hangs the dress on a clothes hanger, made by fifth-grade boys. The other clothes are carefully folded and placed on the back of the chair.

F. Outcomes.

1. Subject Matter.

   Correlations with other subjects of the curriculum:

   a. Reading.
      Original health rhymes used for reading charts.
      Children's original stories based on rhymes printed on blackboard and used for reading lesson.

   b. Language.
      Mother Goose health jingles.
      Original stories for health posters.
      Dramatization of health story, ''Priscilla's Dream.''
      Stories told to children.
      ''Big Brother.''
      ''The Boy Who Forgot to Wash his Hands.''
      ''The Lovely Moon.''

   c. Music.
      My Pussy Cat.
      Air and Sunlight.
      My Son Jack.
      Songs from health story—''Priscilla's Dream.''

   d. Physical Training.
      Original dances by children for the dramatization of health story—''Priscilla's Dream.''

   e. Nature Study and Hygiene.
      Children learn to care for plants in window box outside doll's bedroom window.
      Formation of health habits.

2. Skills.

   a. Improvement in writing through original stories written in health book.

   b. Improvement in spelling of words pertaining to health taken from stories and rhymes.

c. Improvement in handwork.
   Kindergarten.
      Monthly calendar showing children's outdoor activities.
      Books based on health rules.
      Health pictures brought in and mounted for posters to be finished by first grade.
      Selection and mounting of pictures for proper breakfast for first-grade doll.
      Sand table.
      Construction health story—"Priscilla's Dream."
      Making clothes for doll.
   First Grade.
      Monthly calendar showing healthful foods.
      Books based on reading charts.
      Health rules printed on posters made in the kindergarten.
      Sand table.
      Construction Healthland.
      Making clothes for doll.
      Costumes for dramatization of health play, made by kindergarten and first-grade children.

3. Habits.
   a. A number of children have purchased tooth brushes and use them daily.
   b. Many children bring small combs to school and use them after removing their hats.
   c. More children bring handkerchiefs than formerly. Use of handkerchiefs when sneezing and coughing has increased.
   d. Very few children have to be sent from the room to wash hands.
   e. Many children clean fingernails daily.
   f. Children are more orderly in house keeping.
   g. More children eat cereal and fewer drink coffee for breakfast.
   h. Increase in number of children who sleep with open windows.
4. Attitudes.
   a. Great interest in caring for doll and doll's house.
   b. Increased interest in all school subjects.
   c. Increased desire to keep body clean and to wear clean clothing.
   d. Greater willingness to eat wholesome food.

G. Health Play, "Priscilla's Dream."

One night Priscilla's mother was undressing her and putting her into her little bed, while the big round moon looked in through the window.

Priscilla: Mother, can every one see that moon?

Mother: Yes, dear, they can.

Priscilla: Then it shines on those girls I saw this afternoon while I was playing outdoors?

Mother: What girls, dearie?

Priscilla: They were Girl Scouts and were all dressed in brown khaki. I guess they were going on a hike, for they had blankets and a lot of things with them.

Mother: Yes, they probably were. Sometimes they go on hikes and stay over night, sleeping out of doors on blankets.

Priscilla: Mother, could I be a Girl Scout like those girls?

Mother: Yes, you can when you are a little older, but you can begin to work to be one right now, Priscilla.

Priscilla: How? What can I do now, Mother?

Mother: Well, my dear, a Girl Scout has first to know how to keep well and strong. She also must be brave and ready to help anyone she sees that is in need of help that she can give. Would you like Mother to tell you some of the Health Rules that you must keep in order to be well and strong?

Priscilla: Yes, Mother, I will listen and try to remember them all.

Mother: Suppose we say that each rule has a fairy to help you remember to keep it. First, there is the bath fairy. She says if all little children would take a bath twice a week, that would help to keep them well. She has some little helpers that try to remind you to wash your hands and face every morning and some others that say "Always wash your hands before you eat."

Priscilla: Even if I only eat a little lunch?

Mother: Yes, always before you eat anything, for when you have been playing or handling things, your hands are somewhat dirty. Another little fairy wants you to clean your teeth every morning and night. Still another says: "Go to bed early at night and never forget to put up your windows, winter or summer." A very important little fairy urges you to play outdoors in the sunshine every day.

Priscilla: That is a lot to remember, Mother.

Mother: It seems a great deal to remember, Priscilla, but if you do these things every day, they will grow to be good habits, and you won't have to think of each one every time you do it. Now, dear, go to sleep, and when you wake up in the morning, you can begin training for a Scout.

Priscilla: Good-night, Mother.

(Then Priscilla's mother went out, closing the door behind her)

(Priscilla turned over and looked out at the moon and wondered if those Scouts were looking at it just then and where they were. She soon fell fast asleep, and all the Health Fairies came trooping by.)

(First came the Queen of all the Health Fairies)

Fairy Queen If you would like to be a Girl Scout,
My little fairies will help you out.
You must mind them every day,
Then you'll be strong for work and play.

Come, bath fairies and tell your story.

Bath Fairies: We are little bath fairies,
We like those children best,
Who take a bath twice every week
And in clean clothes are dressed.

We little bath fairies have some playmates. Would you like to have them come too?

Priscilla: Yes, I would.

Bath Fairies: Come little playmates.

All children wash their face and hands
Each morning and at night,
They also wash their hands again
Before they take a bite.

Queen: There is another group of fairies that lives with us. We will call them.

Ho-hoo! Ho-hoo!

Tooth Fairies: Did you call us?

Queen: Yes, come and tell this little girl your story.

Tooth Fairies: Our story is not so very long:
Please brush your teeth each night and morn.

Come with us, and let's go outdoors to see if we can find the sunshine fairies. Oh! there they are, just coming out. Come and play with us and tell us what you do.

Sunshine Fairies: We little sunshine fairies
Play out doors all day long.
We light your home and schoolroom,
And make you well and strong.

There are some little fairies that come to play every day while we are out. Here they come now, skipping along. Listen! They are singing while they play.

Tune: Looby Loo.

Come little children, come,
Come out with us and play.
Out in the sunshine bright,
Come play with us every day.

Run and skip and jump,
Sing as you dance and play.
Then you'll be well and strong,
To play with us every day.

Priscilla: Won't you come and eat breakfast with me?

Queen: Yes, thank you, if you have the right kind of breakfast for little children.

All Fairies: We know what's good for you to eat:
First, fruit, then cereal and toast,
An egg and a big glass of milk;
All children need these most.

Queen: Let's all have a dance before we go in.

Fairies: Oh yes, let's!

(So they dance on the grass. While they are dancing, Priscilla's mother comes to the door to see if she has wakened. Priscilla hears her and opens her eyes.)

Priscilla: Oh Mother! I had the loveliest dream about those fairies. I will tell you all about it while I eat my breakfast. I am going to begin to do the things they told me to do this very morning.

I, 5. "The Safety Signal:" A Newspaper

From the Strickland School, Grade I A.
Miss Mary C. Welch, Principal; Miss Mary C. Carney, Miss Elizabeth R. Kelley, Teachers.

A. Situation

The children of Grade IA decided to print a newspaper as a means of publishing safety news. Father and Mother read the newspaper every day to learn what happens in our city and other places. Our safety newspaper would be a fine way to tell all of the children safety news.

B. Objectives

To help the children of Strickland School to understand better how to be safe in play, and on the street.

To lead children to see how they can help to keep others safe.

C. Planning and Executing

Choosing an appropriate name for the paper. Talk about our Springfield papers, the names of the different papers. Children suggested a number of titles and with a little help the title "Safety Signal," was adopted. A study of the arrangement of a local paper was made. It was observed that the title was printed in larger type. Consequently, the Safety Signal must be in larger type too, the other news in small type.

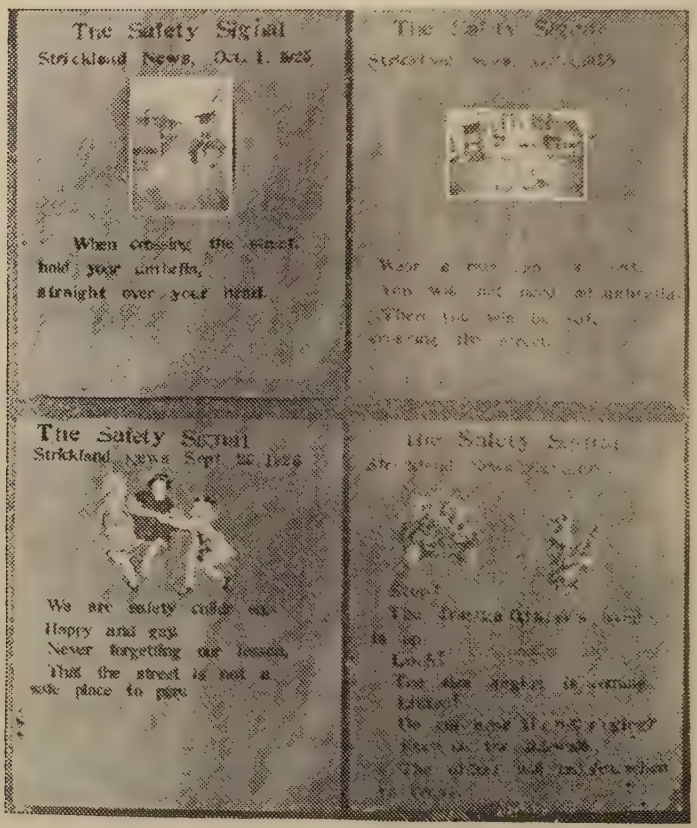
A discussion was then held to decide what a Safety Signal would be likely to do. The traffic officer's signals for crossing the street and for stopping traffic served the purpose.

Page 1: An appropriate picture for the first page was chosen after introducing the necessity of being able to read signs around the school and on the street. A picture was shown, and during a language period a conversation about the picture was held. The word "Danger" on the sign that closed the street to traffic was discussed. Thus, an interest and a need for reading signs was aroused. The children were asked to find signs on their way to and from school, and with the help of parents or older children, to read these signs and come back and tell them to the children. The signs were then printed on the blackboard and the children read them. From the list the children chose "Stop-Look-Listen." The letters were cut freehand, traced, and colored black on a strip of cotton cloth which served as a banner to be used in the Safety Children picture. It proved a very valuable piece of work for it involved many subjects—reading, spelling, language, free-hand cutting and coloring, as well as measurement.

Page 2: The children learned the traffic officer's name and became acquainted with him. They learned that an officer is a real friend to children. Our officer was very glad when the children asked if they might take his picture.

Page 3: The next step was to find out what children should do when crossing the street. The children told their experiences in crossing the street and talked about the dangers of not staying on the sidewalk. It was decided that white lines and the word "Look" painted between the white lines marked the safest place to cross. This lesson inspired confidence in the officer in taking them safely across the street if his orders were obeyed.

Page 4: A community playground in the neighborhood and our own yards are safe places to play. The children were taken to the playground and allowed to use the apparatus. They had their pictures taken to be used in the paper. This trip was enjoyed so much that Olivet Community House and the playground were re-



THE SAFETY SIGNAL

produced in the sand table. Great enthusiasm was shown. Dolls were appropriately dressed with materials brought from home. The Community House was constructed. All kinds of apparatus were built. Even the pool and sand box were not forgotten. Neither were the sail boats nor a little boy sailing his boat in the pool. The

children insisted on having a wire fence. It was hard to decide what material to use for the fence, but netting was brought to represent the wire. One piece of equipment was missing. This was a waste can into which paper and fruit skins should be thrown. The playgrounds must be clean and neat. The children decided to name the playground "Land of Safe Play." A sign, "Land of Safe Play," was printed and put at the entrance gate. These reasons were given for choosing this name:

"We are Safety Children."

"We can't get hurt by automobiles in the playground."

"We can play safely on the slides and swings after we have learned how to use them."

Page 5: As children often stray away from home or are separated from mother or older children during the Exposition or on a shopping expedition, it seemed necessary at this point to discuss the problem of a lost child. The picture of a little boy crying was brought. It was surprising that not many of the children had thought of looking for a policeman to help them. A silent reading lesson was conducted and the children were asked to complete these sentences:

My name is.....

I live at.....

My telephone number is.....

Most of the children were able to fill in the first two, and soon learned to fill in the third if they had a telephone at home.

Pages 6 and 7: A rainy day seemed an ideal time to teach a safe way to carry an umbrella. Safety Children hold their umbrellas back so that they can look to the left and to the right when crossing the street. As so many children wear rain capes or coats, it seemed wise to show the pupils how much safer they are wearing them. It is not necessary to carry an umbrella, especially when the wind blows. This lesson made quite an impression, as many of the children have talked about it at home and are to receive rain coats and hats for birthday or Christmas gifts.

Page 8: Fire Prevention Week came October 4th to 10th. This produced a new problem, so we devoted our time to fire. Our first main topic was fire drill in the school. Promptness in response to

the alarm and the necessity of quietly following directions were discussed.

Page 9: The bravery of the fireman and his duties in safeguarding our city were talked about. The children decided that they needed a page on dangers of playing around the stove or handling kettles at the times mother was not in the kitchen. A demonstration of rolling in a blanket or rug as a means of smothering the flames when clothing catches fire, was given by the children.

Page 10: "Stop-Look-Listen" played another important rôle in keeping on the sidewalk at the approach of the fire department through the streets. Disregard of the rule to keep out of the way of the fire department is very noticeable, especially among the children. Consequently, great stress is put upon the subject and on the possibilities of children helping others to obey the warning of the bell by returning to the sidewalk and staying there.

The anxious look in the traffic officer's face in the picture was observed and the children talked about how hard he must work to stop people who are walking as well as to stop street cars and automobiles.

D. Outcomes

1. Subject Matter.
   a. Valuable lessons in citizenship.
   b. Reading vocabulary greatly increased through street signs and the news sheet.
2. Skills.
   a. Great improvement in arrangement and printing of the paper.
   b. Correct spelling was necessary if people were to be able to read the paper.
3. Habits and Attitudes.
   a. These children have made a beginning in building up habits of carefulness.
   b. Learning how to play together and how to use the apparatus were valuable results.
   c. A beginning of the desire to protect others was evident.
   d. An attitude of confidence in our policemen and firemen was created.

E. Suggested Improvements

It is suggested that if this project is continued, we enlarge the paper so as to include general news items as well as those having to do with safety. This should increase and sustain the interest.

The development of the content should be used as an opportunity for the children to tell their own stories. While the children did all the printing and helped in the composition of the above work, there is in some cases a little too much evidence of the touch of the teacher.

As an exercise in reading this work has been of the greatest value.

GRADE II

In the first grade the work in safety education was approached from the home. In the second grade the setting is transferred to the school. A study of ways in which children can help to make their school a safe school provides in part the subject matter of this grade.

II, 1. Outline of Subject Matter

A. Safety Rules We Have Learned Before

1. Safety on the street.
   a. Keep on the sidewalk.
   b. Cross at the cross walk.
   c. Stop; look both ways before stepping into the street, and wait for clear space if no officer is near.
   d. Watch the traffic officer.
   e. Obey the traffic officer.
2. Meaning of safety signals—"Go," "Stop."

B. New Safety Rules to Learn

1. When on the street.
   a. Cross promptly when the signal is given.
   b. Hold umbrella upright.
   c. Learn new safety signals, Danger—Stop—Look—Listen. Avoid danger: wait until the car stops.
2. When on the playground.
   a. Think of safety for others.
      Play games carefully without pushing or tripping.
      Be careful to aim balls so that they will not do harm.
      Never throw sand or stones, even in fun.
      Use the playground apparatus in the right way.
      Take turns in play.
      Keep the playgrounds safe.
         By picking up papers and rubbish.
         By placing apple cores, fruit skins, etc., in proper receptacles.

3. When in the school building.
   (Illustrated under II, 2)
   a. Helps in making a safe building.
      Pass carefully through the halls and on the stairways. Keep to the right.
      Be orderly.
      Keep the floors and steps clean.
      Pick up paper, pencils, pens, or anything which has fallen to the floor.
      In classrooms, keep materials in proper places.
      Keep feet under desks or tables.
      Clear the room for running games.
      Handle scissors and other pointed articles properly.
4. Fires.
   a. Causes of fires.
      Playing with matches.
      Clothes hanging near fire.
      Carelessness with stoves or fireplaces.
      Bonfires, grass fires, oily rags, rubbish, leaves, etc.
      Ashes kept in improper receptacles.
      Birthday candles, Christmas tree decorations, Halloween, fireworks.
   b. What to do in case of fire.
      At home.
         Notify some older person.
         If your clothing catches fire, wrap yourself in a rug or blanket, and roll over and over.
      At school.
         Obey fire signal.
         Obey rules for fire drill.
5. Good health.
   a. At home.
      A clean body.
      Proper amount of sleep.
      Fresh air and sunshine.
      Proper use of handkerchief.
   b. At school.
      Correct posture sitting or standing.
      Outside wrap and overshoes removed indoors.
      Fresh air and sunshine.
      Proper light. Careful adjustment of shades.

The following teaching units (II, 2 to II, 4) illustrate methods which have been employed in Springfield second grades.

II, 2. A Floor Map of the School and Its Neighborhood

A. Subject Matter

1. School.
   a. Building.
   b. Yard.
2. Streets adjoining the school.
   a. Names of streets—as far as is necessary to introduce traffic problems.
3. Car lines passing through the district.
   a. Tracks.
   b. White posts for stop.
4. Crossings for children.
   a. Safe places to cross.
   b. How to cross streets.
5. Directions (North, East, South, and West) may be taught in connection with this map.

B. Method

1. Building the school.
   a. Select the site for the building.
   b. Measure size of school.
   c. Construct school of paper or blocks.
2. Streets adjoining the school.
   a. Measure width of sidewalks.
   b. Measure width of roads.
   c. Cut paper for sidewalks.
   d. Cut paper for streets.
   e. Cut paper for houses.
3. Constructing car lines, sign posts, and trolley posts.
   Note: Sticks used for weaving in the kindergarten were used for laying car lines.
4. Signs were printed showing the names of the streets and signals.
5. Construction.
   a. Automobiles, street cars, and other vehicles were constructed.
   b. Dolls or figures made from plasticine may be used to represent people.

II, 3. Jack and Bill Rhyme Series

Alden Street School, Grade II,
Miss Helen M. Fletcher, Principal.

The Jack and Bill rhymes grew out of the experiences of two small boys. Each rhyme conveys a safety thought, stated in a positive way that its effectiveness may be increased.

The teacher who wrote the rhymes used them for silent reading in the following ways:

1. Pantomime.
   Read rhyme and act it before the class.
2. Memory test.
   Read rhyme. Repeat from memory.
3. Completion test.
   Supply missing phrases to complete meaning.
4. Read the rhyme and tell the story in a picture.
5. Read each rhyme and write a name for it.

Carpenters these boys would be,
Building houses, sleds, and skiis,
All nails in board left lying round
Are quickly bent and driven down.

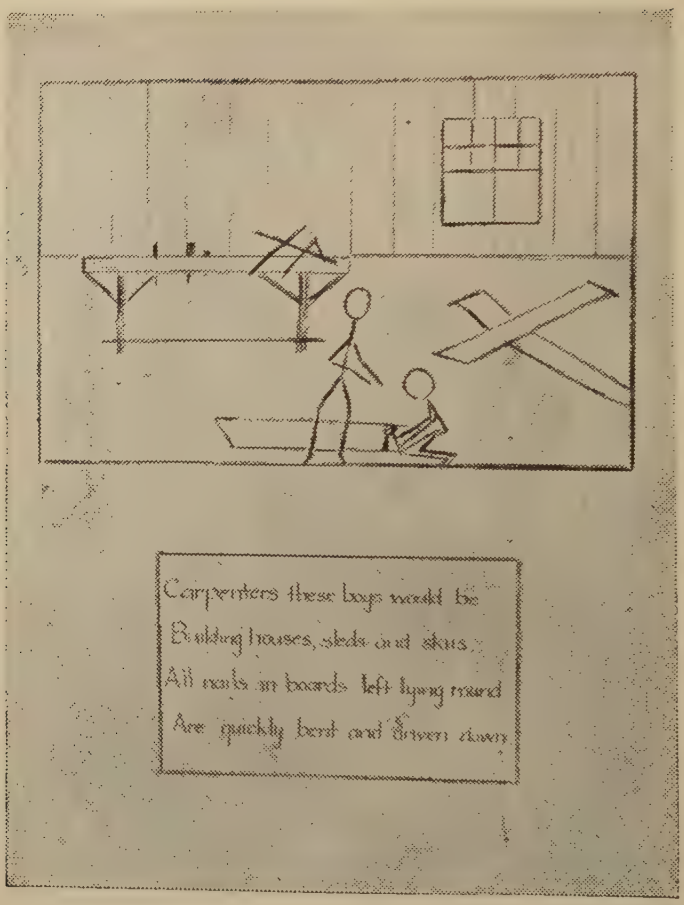
Jack and Bill came to this hill
To slide one wintry day.
But at the foot a road they spied
So quickly went away.

Fresh air helps us to be well
And gives us color bright,
So every morning we can tell
At night we sleep just right.

"Come over here," said Jack to Bill,
"But look before you start.
A minute wait on the other side
Is a rule in this busy part."

Down the street the ice team came,
A very tempting sight,
But Jack and Bill just let it pass
Knowing 'safety first' was right.

The water looked so clear and cool
Upon this summer day,
That both boys stopped to take a drink
But kept their mouths away.



II, 4. An Exercise in Silent Reading

From the Jefferson Avenue School, Grade II.
Miss Mary E. O'Neill, Principal; Miss Mildred L. Warren, Teacher

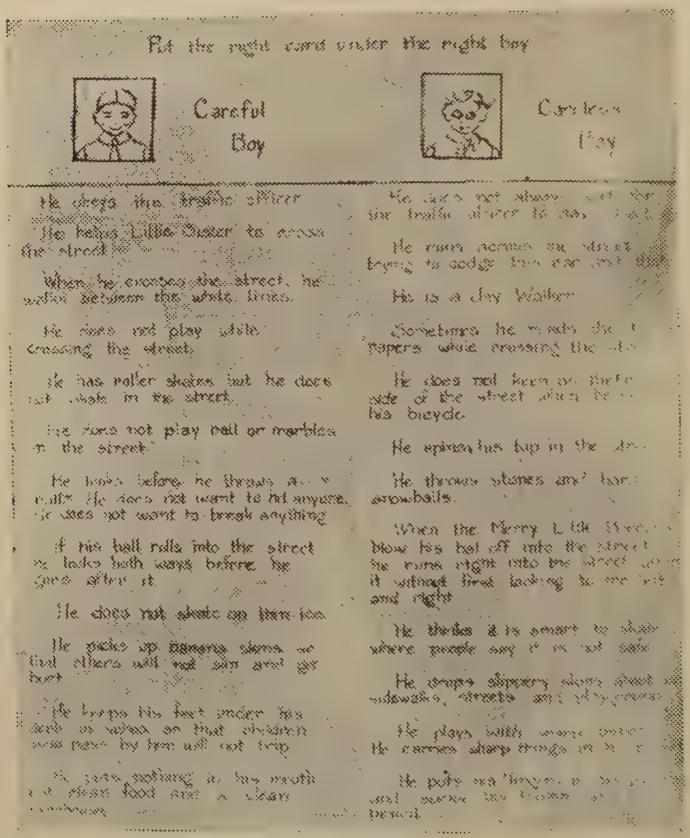
The material shown in the two accompanying cuts was used to afford exercises in silent reading during periods when the pupils worked independently.

In the page headed "Match pictures to rules" the pupil was confronted with the reading matter and supplied with the rectangular pictures which he would place correctly, as here shown, if he could read with sufficient comprehension.

Similarly, in the material dealing with "Careful Boy" and "Careless Boy," except that here the cards containing the reading material were to be placed under one or the other of the two boys.

Both exercises obviously supplied material of value for training in safety as well as devices for stimulating and testing silent reading.

"Big Danger Troll"



"CAREFUL BOY"

GRADE III

A study of fires and their prevention is assigned to the third grade. By the time children reach this grade their interest is reaching out into civic organizations. The fire department is one of first interest, and a study of this department should do much toward developing habits of carefulness where fire is concerned.

III, 1. Outline of Subject Matter

A. Safety Rules We Have Learned Before

1. Safety on the street.
   a. Keep on the sidewalk.
   b. Cross at the crosswalk.
   c. Stop; look both ways before stepping into street, and wait for clear space if no officer is near.
   d. Watch the traffic officer.
   e. Obey the traffic officer.
2. Meaning of safety signals.
   a. Policeman's signals.
   b. "Go"—"Stop."
   c. Danger.
   d. Fire drill.

B. New Safety Rules to Learn

1. Safety when on the street.
   a. What the white lines mean.
      At crossings.
      Center of street.
      At street car stops.
   b. Signs.
      "Entrance."
      "Exit."
      "Stop—Look—Listen."
   c. Street cars.
      How to get on a car.
      Stand on safety zone.
      Wait until the car stops.

How to get off the car.
Ring for car to stop.
Wait until the car stops.
Get off, facing the direction in which the car is headed.
Look both ways before crossing to the sidewalk.

d. Other ways of being careful.
Keep off handle bars of bicycles.
Keep out of streets.
Avoid running behind and in front of cars.
Play ball, marbles, and other games in safe places (see under III, 5)
Keep off automobiles, trucks, and other moving vehicles.
Keep from using scooters, roller coasters, and roller skates in the streets.
Avoid running after balls, hats, etc., which have fallen or blown into streets.

2. Railroads.
a. In crossing, look both ways and wait until the track is clear.
b. Use proper crossing.
c. Cross when gates are up.
d. Avoid playing near railroad tracks.

Note: This situation is not equally applicable to all sections of the city. Place emphasis where this is needed.

3. Fire (see illustration under III, 4).
a. Why we have "Fire Prevention Week" each year.
b. Causes of fire.
Matches.
Candles.
Lamps and gas.
Fireplaces and open gas fires.
Stoves, coal and gas.
Bonfires, grass fires, rubbish, leaves.
Camp fires.
Hanging clothes near the fires.
Birthday candles, Christmas trees, fireworks, Halloween.
c. What to do in case of fire.
Telephone.
Notify older person.
If your clothing catches fire, wrap yourself in rug or blanket, and roll over and over.
Our school Fire Drill.

4. Keeping safe at home—safety from falls.
   a. Keep floors, stairs, and sidewalks clear of playthings.
   b. Avoid standing in rocking chairs.
   c. Place fruit skins in proper receptacles.
   d. Handle pointed and sharp articles carefully.
   e. Keep away from pans, pails, and wash tubs containing hot water.
5. Good health (see illustration under III, 3).
   Health habits are safety habits. Correlate safety instruction with health instruction.
   a. Cleanliness.
      Keep pets clean.
      Bathe regularly.
      Use handkerchief when needed.
   b. Proper clothing.
   c. Good food.
   d. Fresh air and sunshine.
   e. Sufficient amount of sleep means safety.
   f. Protection from dangerous insects, such as flies and mosquitoes.

The following teaching units (III, 1 to III, 5) illustrate the methods which have been employed in the use of the Springfield Tentative Course in Safety Education in the third grade.

III, 2. Preventing Fires

During "Fire Prevention Week" the children became interested in seeing what they could do to help reduce loss of property and life by fire. They undertook to write a book which told the story of how men have conquered fire. The outline of subject matter follows.

A. An Old-Time Fire Department

1. "The Bucket Brigade."
2. Use of hand apparatus.
   a. The hose reel.
   b. The hand pump.
3. Fire horses.
   a. Training the horses.
   b. Starting to the fire.
   c. Coming home.

B. Modern Fire Apparatus

1. Fire engine.
2. Aerial ladder truck.
   a. Ladders.
   b. Life net.
3. Hose wagon.
4. Auxiliary squad.
   a. Hose.
   b. Roof ladders.
   c. Pulmotor.
   d. Gas mask.
   e. Ammonia mask.
   f. Stretcher.
   g. Blankets.
5. Triple combination.
   a. Hose.
   b. Pump.
   c. Chemical.

C. A Visit to the Fire Department

1. An indoor visit.
   a. Seeing the apparatus.
   b. Receiving the alarm.
   c. Ringing the signal.
   d. Going to the fire.
2. An outdoor fire drill by the firemen.

D. Illustrations

Original illustrations, pictures from catalogues of fire apparatus, and photographs added interest to each section.

E. Visit Fire Department

The visit to the fire department was planned at the time when the children were ready to study the present-day fire department. The children kept a record of all questions which they wished answered by the firemen and asked the questions during the visit.

III, 3. "Safety Sue"

Kensington Avenue School, Grade III
Miss Sara Chase, Principal; Miss Miriam I. Gilchrest, Teacher

A. Situation

One morning a little girl in our room gave us a dramatic account of an accident in which, on the night before, her little sister had been very badly hurt.

The children were very much moved by her account, and much discussion ensued. Many questions were asked about the position of the automobile which had hid the oncoming car from the child, who was at fault, and how such accidents could be prevented.

"Cross on crosswalks," "watch traffic officer," "stop and look both ways before crossing," "walk across streets," "be careful when riding bicycles," and "do not ride on handlebars" were some of the suggestions for accident prevention made during the discussion.

B. Purpose

In art periods we had been making pictures for a "Book of Sports," and someone asked if we might make a "Safety Book" instead. This suggestion was received with such enthusiasm that we started work immediately. Needless to say, they wished the first pictures to show how to cross streets correctly.

C. Planning, Executing, and Judging

We planned to limit our books to five pictures—each one to represent one safety rule.

Many rules were suggested, and a list was made from which to choose the ones we most needed. We talked about certain habits of the class in and out of school, and the following rules were chosen:

1. Stop, and look both ways before crossing the street.
2. Use a handkerchief when coughing or sneezing.
3. Refuse bites of other children's apples.
4. Wash your hands before and after eating.
5. Put food away in the ice box.

To impress the safety rules, we made a reading game. The rules were written on one blackboard—the reasons, in mixed order, on the other. A number was suggested and they had to find the rule or reason which went with it, and read it aloud. This gave practice in rapid silent reading and smooth oral reading.

A general plan for each picture was made in a class discussion, and then each child carried out the plan in his or her own way. We had class lessons in drawing objects which the majority of the class would need, such as action figures, houses, trees, automobiles, and kitchen furniture. Some of these required much practice before they were ready for the pictures of the books.

Our principal loaned us a box of crocheted dolls which I left on my desk. The children discovered that there were five dressed in pink. These were chosen for safety dolls—one for each safety rule. The dolls were to do the things shown in the pictures.

Our manual art outline suggested work in interior decoration that called for the use of a small stage and background. We decided to have five stages representing our five rules. On each stage a doll was to act a rule. A background and properties were to be made for a proper setting for each rule. This gave us so much handwork that the class divided into groups. Each child chose one kind of work and the stage on which he wished to do it. Before joining a group, he had to show by his own book that he could work carefully.

Such work as measuring tiling and doors, and cutting patterns of houses and trees were class exercises; and the child who had the best results did the work on the stage. This gave an incentive for correct measuring and careful cutting.

The furnishings for the schoolroom, kitchen, and bathroom were bought for us and required only stain and enamel to suit our needs. The bathroom furnishings especially delighted the children, and they never seemed to lose their interest.

Some of the children had read little books of health rhymes; and as we had made rhymes on other occasions, they wished to have them in their books and posted above the stages.

The choosing of a name for our safety doll was of great importance to the children. June, Sue, and Sally headed the list. As June was the name of a very popular little girl in our room, that name received the most votes. "June," however, didn't fit

into rhymes very well, and when it was pointed out that strangers reading their rhymes might think they meant the month of June, the children decided to change it to "Sue."

The rhymes, when completed, were as follows:

1. Safety Sue doesn't mind crossing streets a bit,
   Because she knows she won't get hit.
   She stops and looks both ways, you see;
   And that's a rule for you and me.

2. "When coughing or sneezing,"
   Said Safety Sue,
   "I use my handkerchief.
   Do you?"

3. "Take a bite of my apple," said a girl at school.
   "No," said Safety Sue, "I am following the rule.
   The rule says that I must not take
   A bite of your apple, candy, or cake."

4. Said Safety Sue, "I wash my hands
   Before and after I eat,
   For this will keep the germs away,
   And I'll be clean and neat."

5. Away in the ice-box food must go,
   So the flies won't get on it, you know.
   Safety Sue puts it there without being told,
   Because she knows that it must be kept cold.

D. Educational Growth from the Project

Though this was primarly a safety project, the work correlated with practically every other subject in our curriculum.

Copying the rhymes for their books and to post above the stages gave the children excellent writing practice, as none but their best could be used for their books. The best in the room were chosen for the stages.

The spelling of words in the rules and rhymes provided material for a number of lessons.

The discussion of plans and rules, the making of rhymes, and the criticism of work gave us a great many interesting language lessons.

These safety discussions caused the children to observe their own habits and those of others. The white lines and "Stop! Look! Listen!" signs took on a deeper meaning for them.

The measuring for tiling and for backgrounds gave a real use for the ruler and yardstick.

In geography we talked about the work done in other countries for the health and safety of the people.

Through their coöperation for the success of this undertaking, some qualities of citizenship were strengthened.

III, 4. The Uses, Abuses, and Prevention of Fires

Lincoln School, Grade III
Miss Anna L. Rice, Principal; Miss Margaret E. Kelley, Teacher

Some time before "Fire Prevention Week," a class in Grade III decided that it wanted to do its part in helping to prevent damage by fires in Springfield. At the same time an invitation was received from a senior high school to produce a play as a part of the school assembly during Fire Prevention Week. This led to the execution of the plan which follows:

A. Planning and Executing

1. Books.

Note: Children impersonating fire wrote short stories which were made into three books.

a. First book—"How I Help You."

(Dedication—"To all my good friends who use me carefully, this book is dedicated by Fire.")

(1) How fire was given.
(2) How I was held sacred by ancient people.
(3) How I kept away wild beasts.
(4) How I was carried in colonial days.
(5) How I cook your dinner.
(6) How I keep you warm.
(7) How I help you travel.
(8) How I make glass.
(9) How I shoe a horse.
(10) How I smelt iron, copper, gold, and silver.
(11) How I help in the lighthouse.
(12) How I keep you well.

b. Second book—"How you Misuse Me."

(Dedication—"To all the children who use my 'Careful Keys' to overcome carelessness, this book is dedicated by Fire.")

Note: Not fire, but careless use of it causes trouble.

(1) Candles on birthday cakes.
(2) Fireworks.
(3) Jack-o'-lanterns.
(4) Matches.
(5) Bonfires.
(6) Camp fires.
(7) Ashes.
(8) Rubbish.
(9) Clothes near fire.
(10) Fireplaces.

c. Third book—"How Brave Knights Fight Fires."
(Dedication—"To the brave firemen, who risk their lives for the people, this book is dedicated by Fire.")

(1) What to do in case of fire:
Telephone.
Notify older person.
Ring in alarm.
Fire drill.

(2) Firemen:
Fire engine.
Ladders.
Life net.
Hose.
Chemical.

Note: These books were illustrated with crayon drawings, paper cuttings, pictures cut from magazines. The covers were made in drawing class.

2. Careful keys.

Note: Bunch of keys, each key having a reminder, was made by each child to take home. The card to which the keys were attached had this rhyme:

Little Careful Keys are we,
Always helpful as can be.
If you use us every day,
You'll be safe in work and play.

a. Be careful to put ashes in metal containers.
b. Be careful to hang clothes away from the fire.
c. Be careful to keep matches in metal box on a high shelf.
d. Be careful to keep children away from fire.
e. Be careful to put boiling water where children cannot reach.
f. Be careful to put rubbish in cans provided for it.
g. Be careful that rubbish does not collect.
h. Be careful that camp fires are out before you leave them.
i. Be careful of candles on birthday cakes.
j. Be careful of fireworks and Jack-o'-lanterns.
k. Be careful of fireplaces.

l. Be careful that chimneys and furnace pipes are clean and in good condition.
m. Be careful that father uses a wire basket when he makes a bonfire.

3. Exhibition case (the home where "Careful Keys" are used).
   a. Basement.
      Ashes are in can, rubbish is in can. Two "Careful Keys" are hanging there, "Be careful to put ashes in metal container," "Be careful to put rubbish in cans provided for it."
   b. Kitchen.
      (1) Matches shown in metal box on high shelf. Doll is putting up "Careful Key" about matches.
      (2) Clothes are hanging on a line away from the fire. "Careful Key" about clothes is also on the line.
      (3) Bigger doll is pulling the baby doll away from the fire. Nearby is the Careful Key—"Be careful to keep children away from the fire."
      (4) Doll is putting pan of hot water so baby cannot reach. Careful Key—"Be sure to put boiling water where children cannot reach" is near her.
   c. Yard.
      An incinerator is shown with the Careful Key—"Be careful that father uses a wire basket when making a bonfire."

4. Occupation work.
   a. Books containing simple stories of glass making and ore-smelting, Indian legends, etc., were left on the library table so children could read them.
   b. Questions to be answered with "Yes" or "No" were put on the board.
      (1) Should ashes be put in wooden barrels?
      (2) Are people in the United States careless?
      (3) Do forest fires cause much damage?
      (4) Should matches be kept on a high shelf?
      (5) Should father use a wire basket when burning rubbish?
      (6) Is it safe for children to play near fire?
   c. Sentences like the following were placed on the board and children were asked to choose the right group of words.
      (1) Matches should be kept in a—wooden box, tin box, cardboard box.
      (2) When going into a closet one should carry—a match, a candle, a flashlight.
      (3) When fire breaks out you should—scream, tell an older person, pay no attention.

(4) Fire does harm—never, always, sometimes.
(5) Fire drills are—to frighten people, save people, burn people.

5. Dramatization.—The Gift of Fire.*

(Two children enter, dragging Fire.)

1st Boy. Now, we'll get rid of him forever and ever!

2nd Boy. Fire, you have done enough damage. We'll have no more of you! My daddy says that every year you do thousands and thousands of dollars' worth of damage. Only the other day I read in the paper that you had burned a great large factory.

(Enter Engine)

Engine. Puff-f, puff-f! You must not kill the fire. It is he who makes me run. How could you get along without me!

(Enter Little Indian Girl)

1st Girl. Poor Fire, poor Fire! You must not hurt poor Fire! He has always been good to our fathers. Don't you know how Fire came! (Tells story, "How fire was given.")

(Enter Cook)

Cook. Oh, here you are! Come quickly or Mary's dinner will be late.

1st Boy. No, indeed, he cannot go. We have decided to punish him for his evil deeds.

Cook. Evil deeds, indeed! Isn't it he who bakes my bread, roasts my meats, boils the water? Oh, I can't work without him!

(Blacksmith rushes in)

Blacksmith. The horse is waiting for his shoe. Fire, what are you doing here?

1st Boy. We brought him here, Mr. Blacksmith, because he has done so many wicked deeds that we have decided to punish him.

(Enter Furnace)

Furnace. How do you think I am going to get along without Fire! If you take him away, I shall be nothing but junk.

(Enter Glass)

Glass. Little boys, how do you think I can be made without Fire! Who will keep out the rain and let in the light when I am gone?

(Enter Gold, Silver, Copper, Iron)

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*All stage properties including keys, costumes, etc., were made by the teacher and children under the guidance of the art department.

Iron. We heard that Fire was in trouble and have come all the way from the mines to help our good friend.

Minerals. (together). You must not hurt Fire. Fire, Fire, our good friend!

2nd Boy. Perhaps he does help all you people, but think of the things he has done. He has burned forests, he has left many people without homes—indeed, he has even killed people. Do we want that kind of fellow with us? No one knows what minute he may hurt us.

Engine. Puff-f, puff-f! Come, let's give this poor fellow a chance! Let him speak for himself. (Turning to Fire) Come, Fire, have you done these terrible things?

Fire. Oh, dear friends, how glad I am to see you here. So many people think I am a mean, useless fellow, always up to some mischief. They forget that before I came, men suffered as the little Indian girl has told you. They forget the heavy loads I have drawn up hill and down hill. They forget the many times I have carried them to the city and home again. They forget that it was I who smelted the ore that made their stoves, their nails, their cars, their tracks, their automobiles, their bridges, their boats. They forget the dinners I have cooked. They forget the frosty nights when I made their homes bright and warm. And now they want to put me out forever and ever. (Turning to Engine) Yes, I am sorry to say I have done these wicked things, but don't be too hard on me. Blame the bad boy who causes all the trouble. He is more powerful than armies. He is more deadly than bullets. He steals in the United States many millions each year. He is everywhere, in the home, on the street, in the factory, in the forests. He brings pain, sorrow, and death, and yet few try to avoid him. He is your worst enemy. He destroys, burns, and kills. His name is "Carelessness."

Furnace. Yes, yes, Carelessness is the fellow who is to blame for all this. He is the one whom you want to punish. Last year my chimney needed fixing, but that bad boy whispered to my master, "Never mind fixing it now. It will be all right for this winter." One cold night, when I was working my hardest, the chimney caught fire. Only for the good firemen and their chemical, the whole house would have been burned.

Iron. I saw some more harm that bad boy did. Once some campers were in a hurry to be off on the hunt. They knew they

should not leave their fire burning, but that bad boy whispered to them, "Oh, never mind, there's only a little spark. That will go out itself." When the hunters had gone the wind fanned the little spark until it burned brighter and brighter. Then the little spark lighted a dry twig. Quickly the flame spread from the little twig to the leaves, then to the bushes, and before long a huge tree was on fire. Soon the whole forest was blazing. How frightened the people in the village were when they saw the raging fire. All day and all night the brave firemen and the people worked, digging a trench around the fire. When morning came, there were just smouldering embers where those beautiful trees had stood. Oh, so many things might have been made of them. Think of that terrible day and night just because Carelessness told those men to leave that little spark!

Engine. Puff-f, Puff-f! What do you think about it now, boys? Are you going to put Fire out?

1st Boy. Jack, I guess we did make a mistake. Carelessness is the one who is to blame. But how can we get rid of this fellow?

Fire. A number of people have found my "Careful Keys" of great help. Would you like a bunch of them?

Boys. Yes, Yes, where can we get them?

Fire. (Calling). Come, my "Careful Keys." Children skip in, saying:

Little Careful Keys are we,
Always helpful as can be.
If you use us every day,
You'll be safe in work and play.

1st child. (reads from key) Be careful to put ashes in metal container. (As he says this he hands each boy a key ring and this key on it. Then he skips away. Each child carries two keys just alike, and as he reads his key, he puts one on each boy's ring, then skips away. When all the keys have been read, each of the boys has a key ring with all of the keys on it.)

2nd child. (reads from key) Be careful to hang clothes away from the fire.

3rd child. (reads from key) Be careful to keep matches in a metal box on a high shelf.

4th child. Be careful to keep children away from fire.

5th child. Be careful to put boiling water where children cannot reach it.

6th child. Be careful to put rubbish in cans provided for it.

7th child. Be careful that rubbish does not collect.

8th child. Be careful that camp fires are out before you leave them.

9th child. Be careful of candles on birthday cakes.

10th child. Be careful of fire-works and Jack-o'-lanterns.

11th child. Be careful of fireplaces.

12th child. Be careful that chimneys and furnace pipes are clean and in good condition.

13th child. Be careful that father uses a wire basket when he makes a bonfire.

1st Boy. What wonderful keys these are! Fire, we are sorry that we have wronged you. We promise that we shall always be a friend of yours and that we shall always use these keys to overcome Carelessness. Come with us and stay with us every day in the year.

III, 5. A Safe Playground

From Washington School, Grade III
Miss Mary E. Daboll, Principal; Miss Carrie E. Cobb, Teacher

A. Situation

When school opened in September, one of the boys in the class came to school with a broken arm. This accident was probably due to carelessness in using one of the slides on the playground. This was our opportunity for a lesson on "Safety on Playgrounds."

In a general discussion the children gave the following reasons for having playgrounds:

1. To keep children off the streets.
2. There are so many children.
3. We play better—"no fighting allowed."
4. We have more things to play with.
5. Mother doesn't worry about us when we are on the playgrounds.
6. Playgrounds are the safest places to play.

There followed a discussion of the special reasons for playgrounds in that district. These reasons were noted:

1. Many apartment houses in this district. This means no yards.

2. More automobiles each year.
3. Many street cars on these streets.

It was suggested that we make a model playground and construct apparatus which children could use without danger.

B. Planning and Executing

The Safety Playground.—A visit to one of the city's best playgrounds was planned and, in order that the interest might be extended into the homes, several of the mothers were invited to join the party. Our class was divided into five groups, and at least one mother was a part of each group. Each group was given a piece of apparatus to observe how it was constructed and its use.

Children like to build with Erector or Mechano sets, and since some of our boys had such sets, its seemed a good medium for them to use in building. These children worked in groups. The apparatus which they constructed included the following:

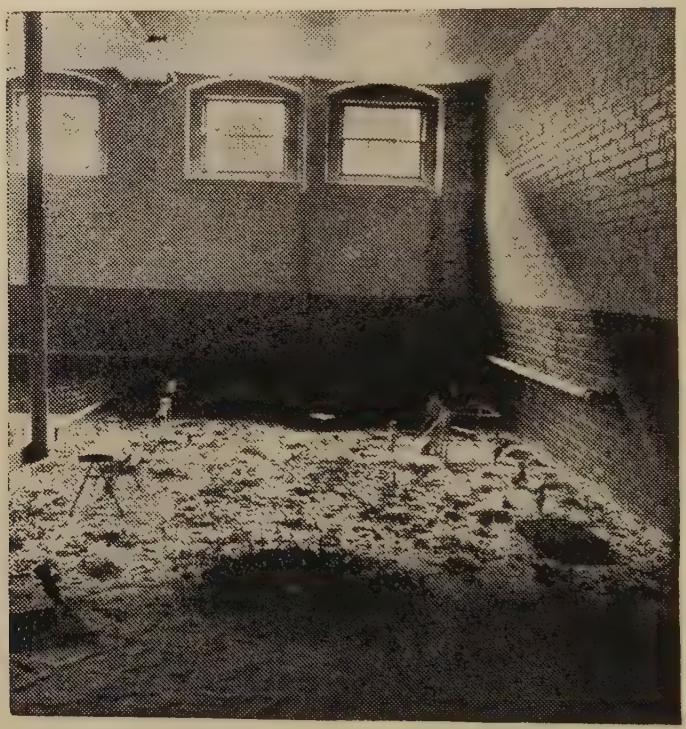
1. Swings with an awning made by the girls.
2. Slippery slide.
3. Giant stride.
4. Various ladders with sliding poles.
5. Traveling rings.
6. Paddle tennis—net made by girls.
7. See-saw.
8. Ring-toss—raffia rings made by the girls.
9. Bubbler made of plasticine.
10. Wading pond with a wall of plasticine.
11. Sand box.
12. Marble ring.
13. Tables and benches were made of beaver board.
14. Flower beds were filled with growing begonias.
15. Dolls were used to represent children. These dolls were dressed by the girls.

The playground, when finished, covered half of the floor of a large basement room. Children passing through this part of the building never grew tired of watching the work as it progressed.

The working out of this problem furnished much material for number work, spelling, drawing, and language. Papers were writ-

ten on "Our Visit to the Playground," "Some Rules to be Observed," and "Our Duty in Regard to these Rules." A few rhymes and slogans were made. One boy wrote an original story. A booklet was made representing the work of the class as a whole. It contains language work, cut-out pictures, and original drawings showing carelessness and its consequences.

The Safety Play. At this stage, the girls decided that they wanted to write a safety play. It represents an uncensored piece



A Safe Playground

of work which was initiated spontaneously by the children. The teacher's suggestions came after the first production of the play, when only slight changes were made. The girls named the play "What the Safety Fairy Does."

The play opens with a group of children playing happily on the playground. One voice can be heard saying, "That's a fine slide! My turn next."

The Safety Fairy stands outside the entrance. Soon two boys come along the street calling to each other, "Come on, Charles, let's have a game of marbles." "All right, Walter, here's a nice smooth place," and they sit down in the road. Their game is just begun when they hear the honk of a horn right near them. The Fairy rushes out and waves her wand over them. The boys jump up in surprise.

Boys:	My! We jumped up just in time, didn't we? We might have been killed.
Fairy:	Do you know what would have happened to you if you had not jumped up just then?
Charles:	We might have lost an arm or leg.
Fairy:	That was a very careless place for you to play. I know where the Safe Children play. Would you like to play with them?
Boys:	Yes.
Fairy:	Then come with me. (She takes them to the Safe Playground.) Children, here are two careless boys who were playing in the street. Will you teach them how to play?
Safe Children:	(Taking them by the hand) Come in, boys, we will show you where to play safely. (Two girls are roller skating on the sidewalk.)
Carolyn:	Louise, see how easy it is to go down this driveway. (Louise follows.)
Louise:	Oh, wasn't that fun!
Carolyn:	(falls) Oh, dear! I have caught my skate in the track. (Before she can get up she hears the honk of an automobile horn very near. Louise helps her up. The Fairy rushes out and waves her wand over them.)
Louise:	Wasn't that a narrow escape!
Carolyn:	Yes, you helped me just in time.
Fairy:	Do you know what would have happened to you if that automobile had hit you?
Louise:	Yes, we might have been in the hospital.
Fairy:	You were very careless children. Would you like to be Safe Children?
Girls:	Yes, we would.
Fairy:	Then come with me. (She takes them to the Playground.)
Fairy:	Here is a playground where all Safe Children play. Children, here are two careless girls that I have just found. They would like to learn to be Safe Children. Will you show them how?

(Two ladies are walking up the street, talking as they go. Two girls rolling hoops are coming from the opposite direction.)

Lucy: Ruth, see who can roll the hoop the faster.

Ruth: All right.

(The girls, bending over and watching their hoops, do not see the ladies, so their hoops bump into them.)

Ladies: My! What careless children.

Lucy: Please excuse us.

Ladies: We will excuse you this time.

Fairy: Why did you run into those ladies?

Ruth: We were careless—that's why.

Fairy: You *were* very careless. You should look where you are going. Would you like to change into Safe Children? Then come with me. (She takes them to the plaground.) This is the place where it is always safe to play.
The Fairy steps up to a Safe girl and says: "Have you a safety rhyme you can say to these new children?"

Girl: Safety, safety is our rule,
We use it before and after school.

Fairy: (to another girl) That was very nice. Have you one also?

Girl: Safety, safety in our play,
We learn about it every day.

Fairy: (to another girl) I have heard yours before and I am sure these children will like it.

Girl: Accidents will pass us by
If we make good use of brain, ear, and eye.

Fairy: (to another girl) I hope you have one that is just as nice.

Girl: Safety, safety is our rule,
We always use it in our school.

The Fairy turns to the new members and says: "You see what some of the Safety Rules are. You will learn how to play like that some day, won't you?"

Louise: (one of the new members) I am sure we will, for it is much better to play here where it is safe than in the streets where we were.

A Letter and a Talk. The class wrote a letter to the Director of Physical Education inviting him to come to our room to talk about playgrounds.

Washington School,
Springfield, Mass.,
October 19, 1925.

Dear Mr. Gray,

We have been making a safe playground. We wish you would come up and tell us how to play safely on it. We should like to have you come this week if you can.

Very sincerely,

Pupils of Room 11.

On Thursday afternoon Mr. Gray came. The next day we made a record of all the things Mr. Gray told us.

C. Outcomes

Reading. One of the girls found a playground story of "Billy and Bessie" in her library book, which added to our interest.

Language. Many real experiences were related. We wrote a book on safe playgrounds. A playlet was written. The following rhymes and slogans were composed:

Ride, ride,
On the slippery slide,
'Twill be a safe ride
If you hold on to the side.

Swings are fun, swings are safe
But do not try to have a race.

I like to go on the slippery slide
For there I can have a nice little ride;
Down I will go, then up the ladder
To see whatever can be the matter.

Be careful means no suffering.
Good games keep boys tame.

Arithmetic. In constructing the apparatus and laying out the playground, opportunity was afforded for much measurement. Cost of apparatus was considered. The number of children using the playground was ascertained and daily averages were computed.

Skills. Growth in number skills, spelling, and writing.

Habits and Attitudes. Children developed safe habits of play and safe habits of conduct when on the street. They gave evidence of a sense of responsibility for the safety of others. Interest in playgrounds grew in the home as well as in the school. Coöperation between the home and the school increased.

GRADE IV

The specific subject matter to be covered in the fourth grade is that having to do with traffic situations in the prevention of accidents, situations in fire prevention, certain health measures in the prevention of disease, and accidents that occur during children's play activities.

IV, 1. Outline of Subject Matter

A. Automobiles and Busses

1. Learn importance of safety zones.
2. Pay attention to signals.
3. Obey traffic officer.
4. Avoid stepping and running from behind parked cars.
5. Avoid running after, and hopping onto, moving trucks and vehicles.
6. Watch carefully on congested streets.
7. Watch carefully before crossing at intersecting streets.
8. Avoid playing in the streets.
9. Avoid "jay-walking."
10. Give special heed to safety at holiday time and during parades.
11. Give special attention to danger points near the school building, such as service stations, etc.
12. Help the driver by letting him know what you are going to do.

B. Street Cars

1. Do not get on or off street cars until car stops.
2. Step off street cars right foot first—never step off backward.
3. Grasp rod firmly while stepping off.
4. Look for automobiles, motorcycles, trucks, wagons, etc., before going toward the sidewalk from a car or before stepping into the street to board a car.
5. Avoid walking behind street cars.
6. Avoid putting arms or head out of car windows.
7. Avoid playing in the streets.

C. Motorcycles and Bicycles

Motorcycles are as dangerous as automobiles if we get in their way when we are crossing the street. Be careful. Obey their signals.

D. Railroads

1. Keep out of the way of railroad trains.
2. Before crossing a railroad track, stop, and look carefully both ways.

E. Water Situations

1. Be careful when wading in water, in order to avoid bruising feet and legs on stones.
2. Appreciate the need of learning to swim.
3. Be careful in use of boats and canoes.

F. Coasting Situations

1. Avoid throwing hard snowballs.
2. Coasting is great fun, but we need to be sure of steering straight and avoiding running into others. Discuss streets closed to traffic for coasting.

G. Traffic Police

1. Duties and responsibilities of policemen.
2. Our duties to policemen.

Note: The Police Department will send a representative to the school to explain fully the work of the traffic department.

H. Fires: Causes and Prevention

(Illustrated under IV, 2)

1. Some ways we can help to prevent fires.
   a. Be careful in the use of candles at Halloween, Christmas, Fourth of July. Avoid carrying candles into a closet to find something.
   b. Avoid playing with matches.
   c. Place oil mops, oily rags, paints in a tin container.
   d. Never allow rubbish to accumulate in cellar and in attic.
2. How the city helps in taking care of fires.
   a. Fire Department.
      (1) Duties and responsibilities of firemen.
      (2) Duties and responsibilities of automobile drivers.
      Explain why "NO PARKING" signs are near fire hydrants.
      Give right of way to Fire Department in case of fire.

3. Duties and responsibilities of children.
   Report to Fire Department or call someone to give alarm.
4. Study of forest fires in connection with lumbering in IV-B geography.
   In connection with other industries consider the ways in which manufactories protect the workmen against dangers in their work. (Excellent places here for correlation.)

I. Measures for the Promotion of Health and the Prevention of Disease

(Note opportunity for correlation with nature study.)

1. Ventilation.
   The necessity for pure air in our sleeping rooms; our homes should be carefully ventilated daily.
2. Clothing.
   Comfortable, clean, clothing, low-heeled, broad-toed shoes, etc.
3. Posture.
   Erect easy posture in sitting, standing, and walking.
4. The necessity of ridding our homes of flies, mosquitoes, etc.
5. Poisonous plants.
   The importance of knowing the poisonous plants in our locality.
   a. Plants poisonous to eat.
   b. Plants poisonous to touch.
6. Observe quarantine laws.
   Discuss reasons for close observance.

The following teaching unit (IV, 2) illustrates a method that has been employed in teaching safety in a Springfield fourth grade.

IV, 2. The Red Alarm Box

From William Street School, Grade IV
Miss Rosa M. Bowker, Principal; Miss Florence M. Cleveland, Teacher

A. Situation

During the week previous to "Fire Prevention Week," the children noticed posters that were being distributed relative to the coming week. Leaflets that had been sent to the homes were brought in. In discussing these posters and leaflets, the question arose as to what we could do for Fire Prevention Week.

During Fire Prevention Week, a year ago, a different group of pupils had had a play teaching the use of the firebox. Some time

later in the year, there happened to be a fire in the home of one of these children. This child remembered his lesson, arose to the emergency, and sent in the alarm himself, thus preventing a serious fire. The children were evidently familiar with this incident, for in the course of the discussion it was suggested as an idea for a play.

B. Planning the Play

A visit to a nearby fire station was arranged. One of the pupils suggested that it would be a good idea to ask a fireman what to do in case of fire.

Upon returning, the pupils were quite enthusiastic and anxious to begin work upon the play. The plan of the play, the characters, and their lines, were worked out in the class. When the lines were satisfactory to the group, they were written on the board, and later copied and memorized by those who were chosen to act the parts. Suggestions and criticisms were made by the players and the audience, after each rehearsal. In this way many helpful suggestions came from the children.

The Play

Act I: Leaving Margaret Street Fire Station.

Martin: Thank you for showing us the fire station.

Fireman: We are very glad that you came. Now if your house should catch fire, what would you do, Vincent?

Vincent: I'd run to the nearest fire box, break the glass, pull down the hook once, let go, and wait for the firemen.

Fireman: That's right. Do you know which box is nearest to your house? (turning to boy)

Michael: Box 351 at the corner of Morris and Dale Street is nearest my house.

Martin: The nearest to my house is Box 37 at the corner of Margaret Street and Columbus Avenue.

Fireman: Don't forget how to help us if you ever see a fire.

Vincent: All right, we won't forget. Good-bye.

Fireman: Good-bye.

(curtain)

Act II: William Street School.

Joe: It was fun to go to the fire station, wasn't it boys?

Patsy: Yes. Didn't the fireman come down the pole fast?

Alphonse: The fireman told us not to forget how to send in an alarm.

Michael: Let's have a play to help us remember.

Patsy: Miss Smith, couldn't we use the fire alarm box we made in school, to make believe send in an alarm?

Teacher: (Jennie) Yes, boys, that's a good idea. You may plan it all by yourselves.

Michael: I know, we'll make believe that there's a fire over there and we'll send in the alarm.

Vincent: Let's have four boys for firemen. I'll play that I see the fire, then I'll run to the fire box. (choose four boys for firemen). Tony, Patsy, Michael, and Joe, will you be firemen?

Boys: All right. (leave stage)

Martin: Now, Vincent don't forget what the firemen told us. "Break the glass, open the door, pull down the hook once, let go." Don't forget to wait to tell the firemen where to go.

Vincent: I'll remember. (sets up fire alarm box)

(pause)

Vincent: Oh! there's a fire over there. I'll send in the alarm. (goes to box, breaks glass, etc., and waits for firemen) (enter firemen, siren blowing)

Fireman: Where's the fire?

Vincent: Right around the corner on Margaret Street (returns to group) (firemen hurry off stage)

Vincent: I think that if I saw a real fire, I'd know exactly what to do.

Martin: That's one reason we have a Fire Prevention Week, isn't it?

Vincent: Yes, but, of course, we should always think, "Safety First, Last, and All the Time."

(curtain)

Act III: Kitchen in Curto's House

Mother: (rushes in kitchen screaming)

Barbara: The bed's on fire! The bed's on fire! The baby took the matches. Oh! What shall I do? What shall I do?

Vincent: I'll run and send in the alarm. (runs off, saying to himself, "Break the glass, open the door," etc.)
(firemen enter with extinguisher, exit to bedroom, put out the fire, and return to stage.)

Fireman: All out! (returning to kitchen)

Patsy: Well, Mrs. Curto, you certainly are lucky not to have everything all burned up. We got here just in time.

Mother: I'm glad my boy knew just what to do. *I* was too scared to think. (drops in chair)

Fireman: Well, Vincent, how did you know how to send in the alarm?

Vincent: The fireman at Margaret Street Station told us all about it. Then we had a play in school, too.

(exit firemen)

Mother: I'll put those matches where the baby won't find them again.

(off stage sounds of fire engine leaving)

D. Naming the Play

After the play was completed, it was suggested to the children that their play had no title. Following are their suggestions:

1. Matches Are Dangerous.
2. Always Be Careful.
3. Mother Didn't Do Her Duty!
4. Matches Make Fires.
5. Safety's Work.
6. Put Out the Fire.
7. Matches! Fire!
8. How to Send in the Alarm.
9. Send in the Alarm.
10. The Alarm.
11. The Alarm Box.
12. The Red Alarm Box.

The Red Alarm Box was chosen from these suggestions as the title for the play.

After the play title was decided upon, the following were some of the comments made (children's own words):

Barbara: It's good! It makes me think that red means fire. The fire box is red. Red means danger.

Bianca: I like it because it makes you think about fires. Fire is dangerous. It makes you think not to play with matches.

Bernice,
(who suggested "The Red Alarm Box")
The fire box is red. The fire engine is red.
The fire is red. Red makes you think of fire.
(She added this:)
If we didn't know how to send in the alarm, there'd be a lot of fires in the city.

Carmella: It's good because after, when your house gets on fire, you know how to send in the alarm.

Patsy: It's good because the play is about the alarm box.
To learn how to send in the alarm is about the play.

Corregio: When my father gets matches, he gets Safety First matches. Never play with matches.

GRADE V

Those who have been active in developing the program of safety education at Springfield have felt that the course of study and methods in this field must be considered from two points of view—first, the more immediate development of better and safer behavior in the pupils themselves in order that they may meet the hazards of daily life more effectively; second, the development of adequate appreciation of the organizations at work in the community at large for the protection of life and property, and hence, of the duties and obligations which rest upon each citizen to be familiar with these organizations and to ally himself helpfully with them.

In the lower grades the emphasis is necessarily upon the first of these points of view, but in the fifth grade and in higher grades the program of safety education takes on a wider outlook and its outcomes are to be found in deepened appreciations, the development of social and civic consciousness, and the assumption of new responsibilities toward all the agencies making for a safer life in the community.

The aim in the fifth year may be stated: to give the children a keener sense of their own responsibility in helping classmates, teachers, and principal to make their school a banner school in safety.

V, 1. Outline of Subject Matter

It will be necessary to discuss many situations such as were discussed in the fourth grade, in order that the children will become more alert and more capable in sensing and meeting such traffic situations. We will review all the points in Grade IV outline.

A. Helping Your Traffic Officers

1. When crossing the street, stop, look both ways, first to the left, then to the right.
2. When getting off a street car, look both ways before stepping toward a sidewalk.
3. Step off a car facing forward.
4. Step off a car right foot first.

5. Avoid darting out in front of street cars, automobiles, and motorcycles.

B. Helping to Make Travel on Railroads Safe

1. *Stop, Look, Listen,* before crossing railroad tracks.
2. Never put your head out of the car window.
3. Never use railroad tracks for short cuts.

C. Traffic Conditions in Springfield

(Illustrated under V, 2)

1. Location of congested streets.
2. Time of day the congestion is greatest.
3. Locations of intersecting streets where greatest danger exists.
4. How pedestrians, drivers of autos and trucks, motorcycles, and boys on bicycles, may help.

D. Local Traffic Rules and Why They Must Be Made

1. Who enforces the rules?
2. What are one-way streets? Why have we one-way streets? How are they marked?
3. Why should you cross the street between white lines?
4. How does the city caution you before you cross the street?
5. Could you pilot across the street a little sister, brother, or playmate? What would you do first? Tell exactly everything you would do to get the child across safely.
6. Name the kinds of officers that safeguard people when traveling. Have you noticed their uniforms? Describe them.
7. Make a list of traffic safety rules for fifth-grade boys and girls to observe coming to and going from school.

E. Fire Prevention in the Home

1. Avoid accumulation of rubbish in the cellar and in the attic. (Spontaneous combustion)
2. Avoid hanging clothes near a gas flame.
3. Children's celluloid playthings catch fire very easily. Avoid keeping them near the fire.
4. Playing with matches is dangerous. Keep matches in a tin box and in a safe place.
5. Careless use of gasoline and cleaning fluids causes fires.
6. Use cleaning fluids instead of gasoline.

F. How the Fire Department Protects Us

The need for a fire department. Duties of firemen. Uniform of firemen. Locations of fire boxes, extinguishers, etc.

Note: The Fire Department will send a representative to the school to explain its actual work. Diagrams for use in explanation may be obtained from the Fire Department.

G. How We Can Protect Ourselves in Case of Fire

1. Things to do in a burning building. Remember that fire cannot burn without air.
2. Things to do if a person's clothing catches fire.
3. In putting out a fire, when would you use water? When would you smother it?
4. Calling the fire department.
   a. Telephone.
   b. Send in fire alarm.
      (1) Run to nearest fire alarm box.
      (2) Break the glass.
      (3) Turn the knob and the door will open.
      (4) Pull down the white knob.
      (5) Stay there until the firemen come.
5. Out-of-door life.

Careless bonfires and camp fires often destroy valuable forests. Governments have found it necessary to employ Forest Rangers to protect forests against this carelessness. (There is an excellent opportunity here to correlate with the study of injuries to trees in the fall Nature Study.)

H. Employers' Methods of Insuring Safety

(Illustrated under V, 3)

1. Uniforms worn by miners. Kind of light carried, caps worn, etc.
2. Protection against dangerous machinery in factories.
3. Hospital service for injured workmen in industrial plants.
4. Find out what is done in a factory near your school. Special clothes, caps to protect women's hair, danger signs, railings, inspectors.

I. Common Risks

1. Learn to swim for fun, for exercise, and for safety.
2. Take care not to injure feet and legs when wading.
3. Avoid stealing rides and hailing automobiles. You are an annoyance to the driver and you endanger your life.

4. Bicycle riding is great fun. Be careful that you don't get hurt and that you don't hurt anyone else.
5. Shot-guns, air-rifles, sling shots, bows and arrows, cause many accidents. Beware of these dangerous playthings.
6. Do not skate on thin ice. It is a foolish risk.
7. Coast only on streets closed to traffic. Be familiar with the streets near your home upon which the city permits you to coast.

J. Precautions for the Preservation of Health

(Illustrated under V, 4)

Note: Correlation with the fifth-grade course in Nature Study might be the point of contact here. The promotion of health and the prevention of disease are very important safety measures.

1. Dangers from "spoiled foods."
   a. Fungi, bacteria, ferments.
   b. Dusting—substances in dust, dust on foods.
2. Exercise of muscles.
3. Circulation of blood.
   a. Function of heart, arteries, capillaries, veins.
   b. Injury to blood vessels, clotting of blood, binding wound, need of cleansing and sterilizing.
4. Effect of alcoholic drinks and of stimulants and narcotics on the human system.
5. Prevention of tuberculosis.
6. Temperature, ventilation, change of air.
7. Lighting; direction and strength of light.

K. How Plants and Animals Are Protected

(Illustrated under V, 5)

1. Value of plant and animal life to man.
2. Protective coloring of insects, birds, and animals. (Selecting a few well-known illustrations.)
3. Protective animal structures. (Selecting a few well-known illustrations.)

The following teaching units (V, 2 to V, 5) illustrate methods that have been employed in Springfield fifth grades to present the foregoing materials.

V, 2. A Study of the Springfield Police Department

From Carew Street School, Grade V
Miss Edith Sauer, Principal; Miss Sadie Poltenson, Teacher

A. Situation

My class had just heard read a letter on street safety, written by the Hon. Wallace R. Heady, Judge of the District Court. The

fact that 20,000 persons are killed annually by automobiles astonished and impressed the class. As the traffic policeman received considerable mention, because he is a friend of boys and girls, some child suggested that the class find out as much as possible about the work of the whole organization to which he belongs.

B. Objectives Growing Out of Situation

1. To build up an attitude of confidence and well-meaning, as well as friendliness, toward the individual policeman.
2. To inform them of the many duties of the department and mode of carrying them out.
3. To make them understand the need of protection from the safety point of view.
4. To find out how the department is maintained and the amount expended for its support.
5. To arouse individual responsibility for the careful preservation of one's self as a duty of good citizenship.
6. To bring out or awaken a spirit of coöperation with the police.

C. Planning

While enthusiasm was still alive, it was decided that all information possible from outside sources, such as fathers on the police force, neighbor detectives, special constables, etc., should be brought in that afternoon and a list of their activities enumerated.

Furthermore, a personal invitation was to be extended to Lieutenant Maloney, chief of traffic squad, to speak to the class and to answer the following questions which had been prepared by the children beforehand:

1. How many men are in the department?
2. How are the duties divided?
3. How much territory in city blocks and in square miles do they cover?
4. Who are the offenders against traffic regulations?
5. How many children are hurt on the streets of Springfield annually?
6. What can we, the pupils of the Carew Street School, do to make Springfield a safe place to live in?

7. How much money is required to support the police department for a year?

D. Execution

1. Class investigations of the cost to the city of maintaining a police department.
   a. Learning means of paying the police.
   b. Learning about the system of taxation.
   c. Learning such terms as Board of Assessors, evaluate, proportion, auditor's report, expenditures, etc.
   d. Responsibility of the administration to the city for the handling of its finances and consequent preparation of an annual report.

   Note: Several children went to the City Hall and obtained copies of the Auditor's Report, Police Commissioner's Report, and other information of a similar nature necessary to use in finding out the things we wanted to know. This step on the part of the children established many social contacts.
2. Understanding and solving the economic problems.
   a. The next two arithmetic periods were spent in solving the following problems, arising from their reading of the reports and the personal talk that Lieutenant Maloney gave the children at school:
      (1) Find cost of maintaining police department in report. Estimate per capita cost of the police.
      (2) How does expenditure for police protection compare with expenditures for schools, public buildings, fire, parks, health? (These were approximate estimates.)
      (3) How much money spent by the police is used to safeguard the lives of our school children?

   Note: By following this procedure we correlated our work in safety with civics, arithmetic, and language. Much interest and enthusiasm was exhibited in these arithmetic lessons.

E. Objective Illustrations

1. Many suggestions for novel posters were presented by the pupils. A vote was taken to determine the one upon which the class should concentrate its effort.

2. A chart of our school district was made with the purpose of pointing out the places where traffic officers are stationed. Our school building was checked and recognition was made of our pupil traffic officers.

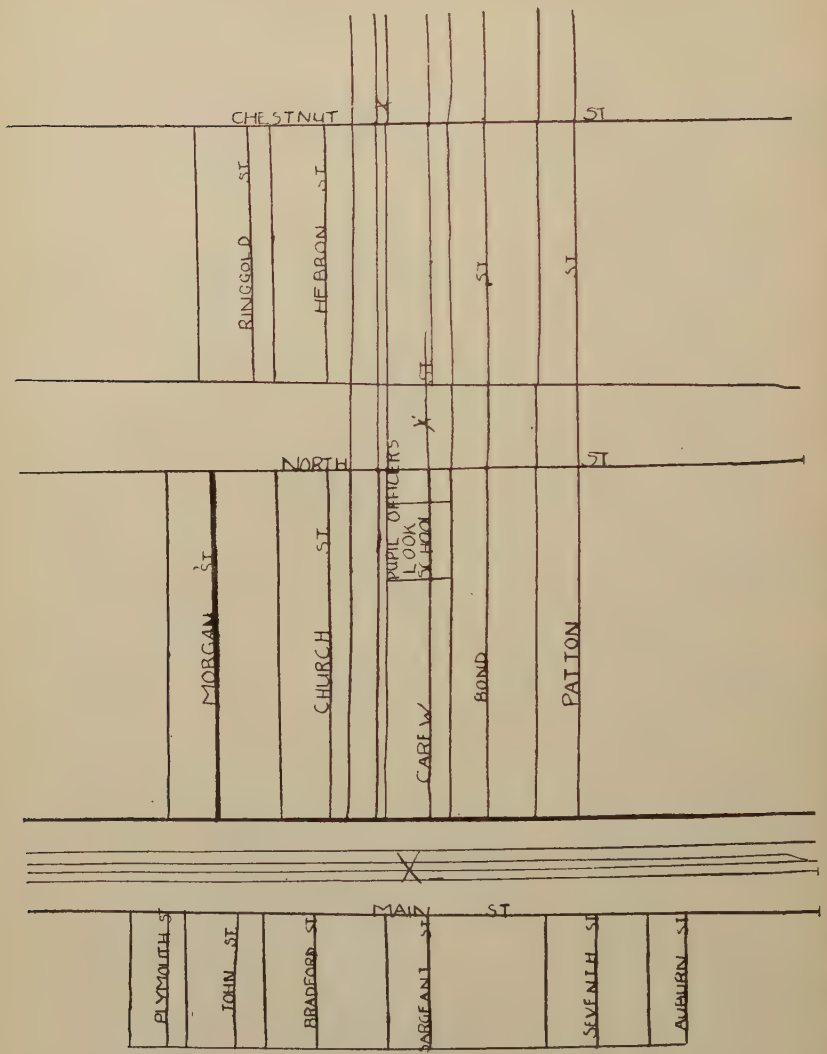


CHART A

Note: This chart is a very imperfect map of our section. We had to admit that it was only a schematic drawing. An opportunity for a more accurate picture was lost, but the pupils appreciated the limitations of their map. Another time the work could be improved.

F. Dramatic Illustrations

A police uniform (made of blue denim), a Red Cross nurse outfit, and a pupil-constructed automobile, were brought in by different pupils. Other stage properties were worked out in the classroom. Several episodes, varying in length from a few seconds to two or three minutes, were dramatized in pantomime:

1. A policeman walking his beat in the middle of the night and seeing a fire. Ringing in the fire alarm.
2. Directing traffic during a congested hour.
3. Child playing ball on the street and being struck by an automobile. Officer taking child to hospital where our nurse takes care of him. Reporting accident to headquarters.
4. Seizing woman, who had just stepped down from a trolley car and was passing in front of it, as she was about to walk in the path of an automobile coming from the opposite direction.

The following topics in our arithmetic course of study were covered in this project: reading and writing whole numbers, fractions, application of percentage to taxation.

In language, we wrote compositions on the Springfield Police Department and on the profit of this study to us. We dramatized and read police stories from books brought from the library by different members.

G. Outcomes of the Whole Investigation

1. An appreciation of civic duties.
2. Formation of a club.

   The class, knowing and understanding the word "citizen" and the fact that their parents are citizens, concluded that they were going to be the citizens of the future. During a discussion, one child suggested that the pupils in this room call themselves "Junior Citizens" and organize a club for the purpose of acquainting themselves with those duties. This club was called "Top Notch" Club, with the idea that its members should try to be at the top (in the lead) of every activitiy. Their motto is, "Anything worth doing at all is worth doing well." Among their aims, which they made and voted on themselves, are to be found the following:

a. To be good pupil citizens.
b. To be loyal to my school, my family, and my country.
c. To obey all school laws.
d. To keep clean.
e. To be polite.
f. To use good English.
g. To work together with the police to make Springfield safe for boys and girls.

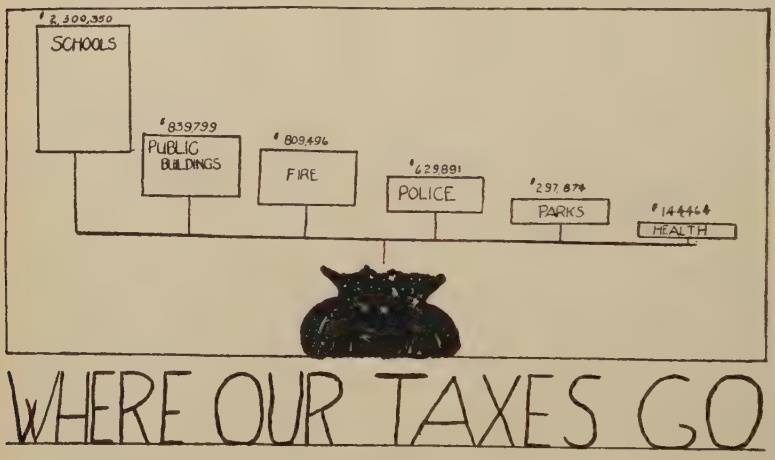


CHART B

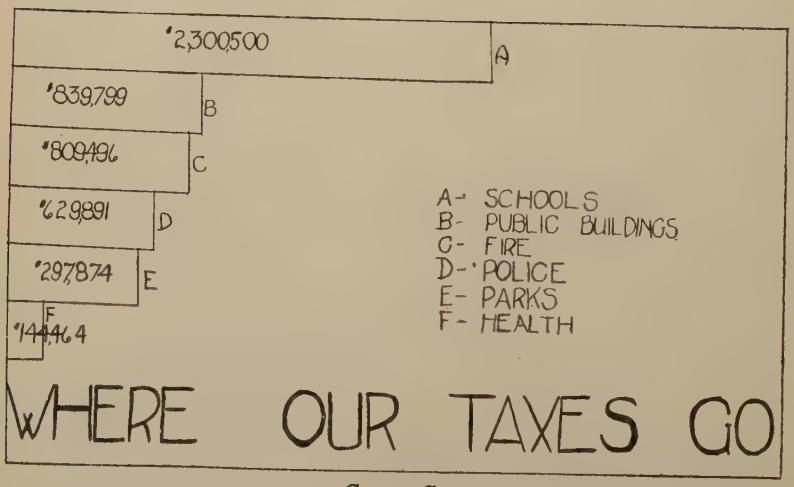


CHART C

3. Apparently greater respect, less fear, and more friendliness for the police department.
4. Better coöperation between pupil-traffic officers, captains of the lines, and other children.

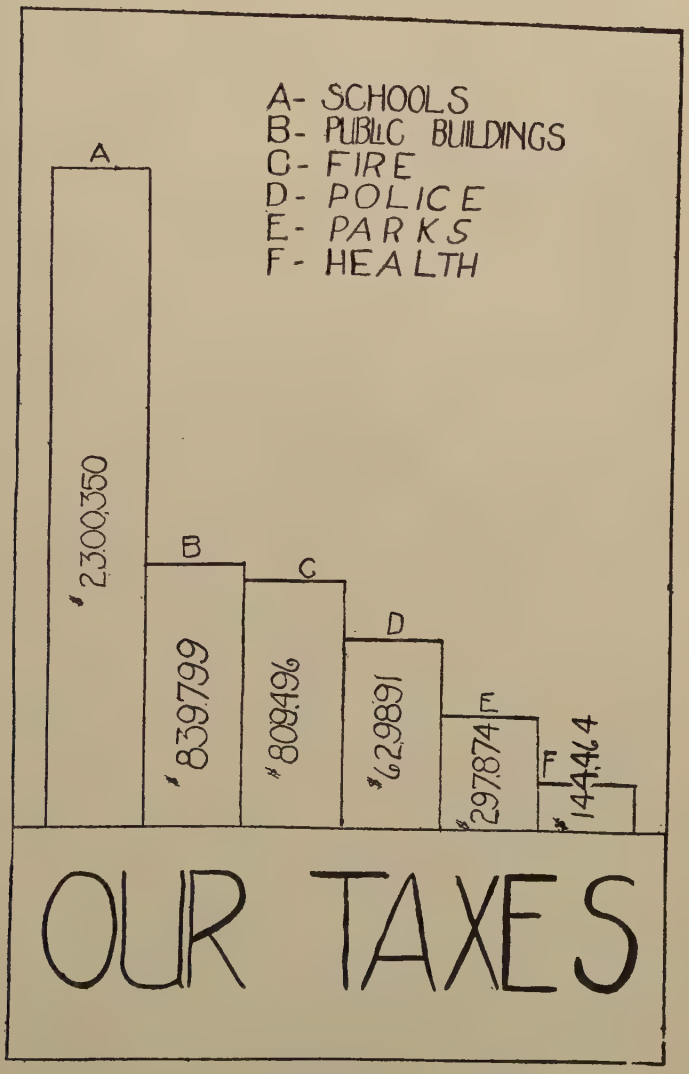


CHART D

5. Taking home the safety and citizenship lessons learned in the school and interesting parents in making Springfield a safe place to live in.
6. Many related contacts were made with other subjects of study. Especially interesting was a study made of the cost of maintaining Springfield's various public departments. The charts shown were worked out by the children in these studies.

H. Bibliography of References Used by Pupils

Jane Eyre Seyer, *Our Home and Personal Duty.*
Emma Bolenius, *Boys and Girls Fifth Reader.*
Irving Crump, *Boys Book of Policemen.*
Irving Crump, *Boys Book of Mounted Policemen.*
Mrs. Lillian Waldo, *Safety First for Little Folks.*
Eleanor Hubbard, *Citizenship Plays.*

V, 3. A Study of the Protection of Workmen in the Industries

From Indian Orchard Elementary School, Grade V
Miss Ellen E. Morrissey, Principal; Miss Marguerite R. Sheehan, Teacher

During an interview with the safety engineer of a local company, a graph was produced showing that in 1916 the number of accidents was highest and that this number has been decreasing materially each year, until during the last two years the percentage of accidents was very slight.

A graph showing this curve was shown to the pupils. Immediately, the following question came up: What made the curve drop? Some of the reasons given were:

The mill has better machinery.
People are more careful.
The employees have work which they can do best.
The employees hear more about safety.

Several of the pupils had seen copies of the safety booklet which is published by this company and this they thought helped to prevent accidents. We decided that safety education was one of the big reasons for the decrease of accidents.

The pupils had some information about what was done in the company to teach the employees safety. They told of the lectures

given, the moving pictures, and the bi-monthly magazine which contains an article on safety and a safety cartoon. Several copies of the safety booklet were brought in. We analyzed many of the rules in this booklet to find what must have caused many accidents. It was found that carelessness, the clothing worn by women, and cleaning machinery in motion, were responsible for many. In this booklet special emphasis was placed on the reporting of slight accidents in order to prevent serious infections.

We discussed how we could show what this company does to prevent accidents by education, so that other pupils could learn about it. One of the pupils suggested that we do so by means of a play and this met with the approval of the class. They decided the play should show a man applying for work and the various things which took place in the mill which emphasized safety.

Peter, an Armenian boy, had often gone to the mill to act as interpreter for his relatives. He explained the procedure for getting a position, including the visit to the Employment Office and the examination by the doctor. One of the pupils asked: Why does this company have each employee examined by the doctor?

Some of the answers given were:

> "An examination would prevent a person with a contagious disease from working with other people."
>
> "An examination would keep a man from doing work which he was not able to do."
>
> "An examination would prevent accidents."

This question came up for discussion. How would a physical examination prevent accidents?

The following are examples of the answers given:

> "A man with poor eyes would not be allowed to work on a machine which needed close attention. If he couldn't see his work clearly, he might hurt himself."
>
> "If the doctor found a man was not strong, the employment manager would not give him a job lifting bales which he might drop and injure himself or someone nearby."

After the physical examination, Peter told the other pupils, the man who was looking for work returned to the Employment Office. If there was work that he could do he was given a job; if not, he was told that he would be notified when there was a position open.

The pupils decided the next person to visit would be the Safety Engineer, who would give the new employee a safety book and explain what it contained. From there he would be sent to the overseer, who would instruct him in his work and see that he read the safety book.

This question arose. What would be done if a man could not read English? As a great many of the pupils have acted as interpreters in their own homes, they quickly said it would be read and explained to that man in his own language.

They decided this should be shown in their play.

This company has a printed slip stating that the employee will obey the rules in the safety book. Each employee who can read English must sign it. If he cannot read English, the overseer must sign a slip stating that he has had the book explained in the new employee's own language. The play would have to show the man going to the office to sign the slip.

The pupils thought that this would be all they could show of the educational work, until they were asked what would be done if some of the employees broke some of the rules. One boy said they would be spoken to by the overseer, as he was held responsible for the accidents in his department. They planned to add this to their play. Thus, the steps they planned to cover were:

The application for work
The examination by the doctor
Assignment to suitable position
Visit to the Safety Engineer
Instruction by Overseer
Enforcement of rules
Signing of the slip

The cast which the play would require was worked out. Three men were to apply for work. Two had never worked before. One was unable to read and write English. The third applicant was to have worked before and left his work because it was too hard for him. As one applicant was unable to read and write English, the play would require an interpreter. An employment manager, a doctor, and a safety engineer were needed. As the pupils planned to have one man get a position as an elevator operator, an overseer of elevators was added to the cast. Another applicant was to become a winder. Some pupil would have to be the overseer of the

winding department. In order to show the enforcement of rules, it was decided to have several women working in a department, with a forewoman in charge. A messenger was added, as he would be needed to take the new employees to the various offices.

After the cast was decided upon, the lay-out of the offices and various departments was arranged. The employment office was put in the southeast corner of the room. Nearby was the doctor's office. The office of the safety engineer was a table in the rear of the room. The wardrobe cupboards, which have sliding doors, made very satisfactory elevators. Another table in the rear of the room was used as a machine in the winding department. The spinning department was located near the windows.

The conversation which the members of the cast would carry on was discussed. Different pupils took the part of employment manager and applicants; the other pupils criticized the conversation. In this way the dialogue which was needed in the play was worked up. Various sections of the safety booklet were selected to be read by the overseers to the employees.

The result of this planning follows:

Characters

Employment Manager	Armenian Interpreter
Doctor	Overseer of Winding Dept.
Safety Engineer	Overseer of Elevators
Three Applicants for Work	Forewoman of Spinning Dept.

Spinners

Prologue: We are going to show you how a large manufacturing company prevents accidents by education.

Scene 1

Employment Office. Employment manager seated at table. Line of applicants outside of office.

First Applicant: Have you any jobs to-day?

Employment Manager: Yes, I need some men. What is your name?

First Applicant: Gerard Dildabanian.

Employment Manager: Where do you live?

First Applicant: 11 Lyons St., Indian Orchard.

Employment Manager: How old are you?

First Applicant: 18 years old.

Employment Manager: Did you ever work before?

First Applicant: No.
Employment Manager: Where were you born?
First Applicant: Constantinople.
Employment Manager: Can you read and write English?
First Applicant: No.
Employment Manager: You will have to see the doctor before I can give you a job. Take this card to him.

Second Applicant: Have you any work?
Employment Manager: Yes. What is your name?
Second Applicant: Casimier Zaranek.
Employment Manager: Where do you live?
Second Applicant: 34 Indian Leap St., Indian Orchard.
Employment Manager: How old are you?
Second Applicant: 18 years old.
Employment Manager: Did you ever work before?
Second Applicant: No.
Employment Manager: Where were you born?
Second Applicant: Indian Orchard.
Employment Manager: Do you read and write English?
Second Applicant: Yes.
Employment Manager: You will have to see the doctor before I can give you a job. (Gives card to be taken to doctor.)

Third Applicant: Do you need any men to-day?
Employment Manager: Yes. What is your name?
Third Applicant: Alfred Walence.
Employment Manager: How old are you?
Third Applicant: 20 years old.
Employment Manager: Did you ever work before?
Third Applicant: Yes.
Employment Manager: Where did you work?
Third Applicant: Fiberloid Company.
Employment Manager: Why did you leave?
Third Applicant: The work was too hard for me.
Employment Manager: Where were you born?
Third Applicant: Indian Orchard.
Employment Manager: Do you read and write English?
Third Applicant: Yes.
Employment Manager: You will have to see the doctor before I can give you a job. Take this card with you.

Scene 2

Doctor's Office

(Doctor examines eyes, lungs, and heart of first applicant and writes on card.)

Doctor: Open your mouth. I want to examine your teeth and throat.
Let me see how tall you are.
Step on the scales.
This man is very healthy.
Take this paper back to the office.

(Doctor takes second applicant's card. Gives same examination.)

Doctor: This man should have work not hard on the eyes. Take this back to the office.

(Same examination is given to third applicant.)

Doctor: This man should have outside work.
(Returns card to applicant.)

Scene 3

Employment Office

Employment Manager: (To third applicant) The doctor says you need outside work. I am sorry I do not need any outside help today. I will let you know when I do. Next.
(To first applicant) I need a man in the winding department. The pay will be $18 a week. Do you want it?

First Applicant: Yes.

Employment Manager: Will you have a seat?

Employment Manager: (To second applicant) The doctor says you need work not hard on the eyes. I need an elevator operator. The pay will be $17 a week. Do you want the job?

Second Applicant: Yes.

Employment Manager: (Calls Messenger) Take these men to the Safety Engineer.

Scene 4

Office of Safety Engineer

(Enter new elevator operator)

Safety Engineer: (Hands safety book to new elevator operator.) This book tells you how to avoid accidents. Read it carefully. If you do not understand it, ask your overseer about it.
Boy, take this man to the elevator overseer.
(To first applicant) You cannot read English?

First Applicant: No.

Safety Engineer: Boy, get the Armenian Interpreter.

(Armenian Interpreter enters)

Safety Engineer: Tell this man in Armenian what the Safety Book says.

Scene 5

(New elevator operator standing near elevator with overseer of elevators.)

Elevator Overseer: I will read the safety rules about operating an elevator. (Reads extract from safety book. Explains operating of elevator.) Read the first part of the safety book. You may sit over there and study the book. When I am sure that you know how to run the elevator, I will send you to the Safety Engineer.

Scene 6

Winding Department

Overseer: (To interpreter) I will read the safety rules about winding. You will repeat them in Armenian. Be sure this man understands them. (Reads extract from book. Interpreter repeats.)

Scene 7

Spinning Department

Forewoman: Stop work, please. Some women are breaking these rules. (Reads rules which have been broken.) You must be more careful. We cannot have people working here who do not keep these rules.

Scene 8

Office of Safety Engineer

(Overseers and new employees return to Safety Engineer's Office)

Safety Engineer: This card says, "I hereby acknowledge the receipt of Accident Prevention Rule Book No. 1185, and agree to read same carefully and obey the rules therein." (To Winding Dept. Overseer) You sign this slip stating that this book has been explained in Armenian to the new man in your department.

Safety Engineer: (To new elevator operator) Sign your name here. I hope you men will find time to attend the moving pictures and lectures on safety. These will help you to avoid accidents.

After the play had been satisfactorily worked up, the pupils were asked if they themselves taught safety to anyone. Several had to teach their younger brothers and sisters. We discussed the causes of accidents in their homes. Safety rules were made, which if obeyed, would prevent these accidents. Some of these were:

"Don't put your hand near machinery that is in motion."
"Don't play with electric light switches."
"Don't put objects in places where they may injure people."
"Don't play on stairways."
"Don't leave loose matches around the house."
"Put pans and pails of hot water where small children cannot reach them."
"Don't stand on rocking chairs."

The discussions and the working up of the play gave much opportunity for free expression in conversation. The pupils enlarged their vocabularies as many new words came up in this work, such as discharge, employee, infection, operator, overseer, interpreter, etc.

Posters were brought in showing accidents which were caused through carelessness.

The pupils learned how to write letters, as invitations were sent to various rooms in the building inviting them to see the play.

In addition to these results in school subjects, the children have come to realize through this work the big part which safety plays in all phases of life and the value of education. It made many of them more careful about the way they did things, as they now know that carelessness and lack of knowledge cause a great many accidents.

V, 4. John Healthy: A Motion Picture

From Indian Orchard Elementary School, Grade VA
Miss Ellen E. Morrissey, Principal; Miss Frances E. Bolger, Teacher

A. Situation

In connection with our work on safety we decided that by learning how to keep our bodies strong and healthy, by eating the right foods, and by getting fresh air and taking exercises, we would be learning to live safely.

B. Planning

The children thought it would be well to find a way of telling or showing these lessons to other children in the different rooms in our building. First, we thought of making a book. We collected many pictures to illustrate the different topics about which we were studying. The children were going to write little stories to put into the book. One picture which was brought in was a healthy, happy-looking boy. He was running, going on an errand for his mother. It was suggested that we give this boy a name, and after many names were presented by the children it was decided that he be called "John Healthy." Then they thought, "Why not make a moving picture reel, having 'John Healthy' play the principal rôle? He could show other people how to live wisely and how to be healthy and happy."

This suggestion was due to the fact that a rather crude moving picture box, portraying famous characters and incidents in history had been in use in our room. It was decided to make the "John Healthy" movie an improvement over our other one. Accordingly, the boys in the general auxiliary (subnormal) room were asked if they would make a little theater for us while we were working on the moving picture reel. They were delighted to be able to help us. Dimensions for the theater were discussed and decided upon. Incidently, the children had practice in measuring, estimating, and planning. One boy went to the auxiliary room and placed the order for the theater.

C. Execution

The boys built a very attractive box. These were the dimensions: width one foot, five inches; height two feet; length three feet. One of the sides, two feet by three feet, was left open. This was to be the front of the theater. Two holes were bored in both the top and bottom of the box. These were five inches from the 17-inch end and half way between front and back. Then round sticks two and one half feet long were put through these holes from the top to the bottom of the box. The reel, on which our pictures and printing were to be pasted, was to be shown by being wound from one to the other of these pieces of wood. Handles were put on top of the two and one half foot sticks to turn them more easily

and because the boys thought that these gave the box a more finished appearance. Two small pieces of board were nailed on the top and bottom of the front. These were designed and cut with coping saws, so as to give the appearance of a real stage. Then, on either side of the front, the boys made wings out of wood. These were nailed on at a slant to make the stage more effective. We decided to have a curtain, so the boys made a roller, which was turned with a handle. The curtain could be rolled up or let down as we wished. It worked very well.

Our Art Supervisor helped us to plan a design to be put on the wings. A committee was then chosen to decorate the wings. First, they papered them with light green drawing paper. Then they cut out landscape scenes using darker green and black. When these were pasted upon the wings, we realized that our theater was much improved. Next, came the planning of the curtain. After measuring and deciding how much material would be needed, we

decided to buy unbleached muslin. We found out the price of this per yard and then worked out an example to find out the cost of the cloth which was needed. One girl was sent to buy the cloth. Two girls measured and sewed hems on it. The curtain was two and one half feet by two and one half feet when finished. A small rod was put through the bottom hem to act as a weight. We found pictures of theater curtains and planned to decorate ours. Another committee worked on the curtain. They drew on the curtain a

scene showing trees, a lake, distant mountains, and sky. The whole picture was done in colors with wax crayons. This completed our theatre.

While the box was being made, the whole class had been studying the topics which are assigned to the fifth grade in the Springfield Safety Outline under the heading "Precautions for the Preservation of Health" (see Section J in V, 1).

We collected books in our school library which contained information upon these subjects. The children went to the public library for books, pictures, and posters. They wrote letters to the Liberty Mutual Insurance Company of Boston. They sent us many posters which we could use in our work. We obtained leaflets from the Health Center Bureau.

It was decided to make our movie in this way. We were to write poems or paragraphs about these different topics as we learned about them and then show pictures to illustrate them. The first topic for study was "Muscles." The children learned what muscles are, what foods help to make strong muscles and why we should exercise our bodies. They planned to write a verse about John Healthy. This was written by the whole class during the language period. Poems which the children knew were given as samples, and they tried to pattern their verse after these other poems. This is the first verse which they wrote about John Healthy:

"This is John Healthy,
We call him wealthy,
Because his muscles are strong.
He is happy and gay
At work and at play,
So his life should be useful and long."

Then we gave our "movie" a name. It was, "How John Healthy Lives Up to His Name." This was selected from several submitted by the class. This was printed on the paper first. Then we pasted on the picture of John Healthy (which was being displayed when the accompanying photograph was taken), and next printed the little verse which the children had written about him.

The work continued in this manner. As we studied the different topics, the children found many interesting pictures and stories which helped to drive home the lessons taught. They wrote many short stories about the work which they used in their nature study

note-books. Different experiments were performed, as for instance, one in connection with the study of bacteria and molds. Bread was put in a warm, moist place, and the children were much interested to see the mold form on it. When we studied about circulation and injury to blood vessels, the pupils dramatized lessons in "First Aid." In connection with the study of the prevention of tuberculosis, open-air schools were discussed and some pictures of the children in one of the Springfield open-air schools were shown to the class.

Many of the illustrations for the reel were drawn by pupils in our room. One or two were a bit humorous, as for example, bacteria were shown as possessing legs and being able to run after food. The following outline shows just how our reel worked itself into shape.

Outline for Film for "Good Health" Movie

1. Title: How John Healthy Lives Up to His Name.
2. Picture of boy.
3. "This is John Healthy
   We call him wealthy
   Because his muscles are strong.
   He is happy and gay
   At work and at play
   So his life should be useful and long."
4. "Muscle is the lean meat of the body. It is the machinery which moves all the parts of the body.
   To have good muscles we must exercise them."
5. Picture of children playing. Underneath is printed:
   "Playing out of doors is the best kind of exercise."
6. Picture showing a boy standing correctly.
7. "Here are some posture rules which John Healthy keeps:
   Stand straight.
   Hold your head up.
   Keep your chin in.
   Hold your chest high.
   Keep your back flat."
8. "Muscles wear out and need repairing. Good food repairs and builds up muscles."
9. Picture of milk bottle.
10. "Milk is the best food for building and repairing the body. John Healthy drinks two or three glasses a day. His breakfast of cereal and milk builds up his muscles and helps him to work and to play."

11. Pictures of good foods. Underneath is printed: "These are some foods that John Healthy likes. They are good body builders."
12. Picture of clean kitchen. Underneath is printed:
"Mrs. Healthy's kitchen. Isn't it nice and clean?"
13. "Bacteria are tiny plants which live in dust and dirt. Some bacteria cause disease. These must be kept from food."
14. Picture of bacteria. (This was drawn by a pupil.)
15. "Germs are so very small
They never can be seen at all.
They live in dust and are so rude,
That they fly upon our food."

"Now apples red and sweet,
Are good for John to eat.
But their skins must be washed with care,
For germs are hiding there."
16. Picture of boy and apples.
17. "The blood flows through all the parts of our body. The heart pumps the blood through the arteries. It goes into little tubes called capillaries. The blood carries food to our muscles. The waste matter is carried away by the veins."
18. Picture, showing the amount of blood in the body. (Drawn by a pupil.)
19. Picture showing how to bandage a wound.
20. "Cleanse all wounds with an antiseptic. Use only sterilized gauze, or bandages on wounds."
21. Picture of iodine bottle and of gauze. (Drawn by a pupil.)
22. "Tuberculosis is caused by germs which get into our lungs. John sleeps in a well ventilated room. His lungs need fresh air to keep them strong."
23. Picture of John in bed.
24. Picture of John waving goodbye. He is running toward a sign post on which is printed "Safety Road. This way to Good Health."
25. "Now to John Healthy say, 'Good-bye.'
Aren't you glad we told you why
He's happy, healthy, strong, and gay?
Won't you, too, take the 'Safety Way?'"

D. Outcomes

From this project the children learned why it is necessary to take care of our bodies. They were made to realize that good health is something very precious and desirable for us all. They perceived that by keeping their bodies strong, each one would be better to do his share of work and would thus be contributing to the cause of safety. Improvement in the appearance of some children has been noticed.

Many new words were added to the children's vocabularies. Some of these were: dimensions, infection, antiseptic, sterilize, bacteria, veins, arteries, capillaries, posture, oxygen, etc. They learned how to spell many of the new words. Much drill was given in oral and written language work, in writing the verses and paragraphs. Both silent and oral reading received much attention, and the oral reproduction of their reading helped them better to express themselves. Worth-while practice was given in sewing, art, arithmetic, and writing.

Good health habits were taught during the progress of this work. A great interest was shown by pupils of neighboring rooms, and our little theater can be used to help these other children learn these lessons. Thus, the children have not only made something which will be of use to themselves and to others for a long time, but they have learned lessons in helpfulness and service to others. Considering the many results derived from this work, the whole project has proved to be very much worth while in our school.

V, 5. A Study of the Protective Devices of Plants

From Tapley School, Grade V
Miss Addie McKechnie, Principal; Miss Cecilia E. Wood, Teacher

Editor's note:—Limitations of space have prevented the printing of this teaching unit in detail. It consisted essentially in an attempt to correlate the work in nature study with that in the safety education outline by considering such topics as

1. Value of plant life to man
2. Protection of plants
3. Chief purpose of all plants
4. Various kinds of seeds
5. Colors in fruits
6. Protection of seeds
7. Scattering devices in seeds

In developing this outline a simple nature play was written by fifteen pupils; much reading was done in nature study books, and an exhibit was made by the pupils, as shown in the accompanying photograph, to illustrate different aspects of the protective devices of plants.

CHILDREN'S EXHIBIT OF PROTECTIVE DEVICES IN PLANTS

The first chart shows seed-scattering plants; the second, the protection of plants by spines; the third, edible fruits. The framed chart contains sketches of fruits. The material on the table shows protection of seeds before ripening and scattering after ripening.

GRADE VI

In Grade VI there has been an attempt to influence behavior through the development of appreciation of those civic organizations whose purpose is the protection and preservation of human life. The outcomes, if they are to be considered as effective behaviors in danger situations, are remote. But since the work of the preceding grades has attempted to bring about learning situations in which rather more immediate results in actual danger situations may be expected, here, with such background of experience, and with the maturity levels of sixth-grade children in mind, it seemed an appropriate time to consider a study of community agencies that have a part in protecting and preserving life. The aim of this year's work is, therefore, to develop in boys and girls a sense of civic responsibility in their influencing, protecting, and caring for other children. The approach to safety education here is through a study of the organized agencies at work in the prevention of accident and for the promotion of well-being.

VI, 1. Outline of Subject Matter

A. The Organized Agencies for Accident Prevention

Note: Here is an excellent opportunity to study Coast Service in connection with VI-B Geography.

1. Police Department: traffic control, mounted police, traffic policemen (uniforms of policemen), safety zones, safety signals, speed laws, drivers' licenses.
2. Department of Public Works: building inspection, inspection of boilers and heating apparatus, inspection of electrical wiring in homes and public buildings, permission to install gas stoves and heaters, inspection of such heaters, inspection of elevators, inspection of theaters and motion picture houses, licenses of operators of electrical apparatus used in theaters.
3. The National Safety Council is a body of men determined to prevent accidents. The members are employers in every industry, including workshops, public utilities, mines, etc.; representatives of schools and colleges, government officials and other individuals interested in industrial and public safety. (See under VI, 2.)
4. The Springfield Safety Council is the local branch of the National Safety Council. Following is a statement of the principles of this local branch (reprinted from a Council Bulletin).

The aim of the Springfield Safety Council is to foster and create an atmosphere of safety in the community; to carry on activities which will reduce street, industrial and home accidents, and which will avoid danger and waste from fires; and to sponsor programs of education in factories, schools, churches, and public utilities.

The Council coöperates with city and state authorities, civic organizations, and other agencies to further the principles of safety. It endeavors to act as the clearing house of information on accident prevention between the police, the courts, and the public. The Council is strictly an educational and coöperative organization, and it is interested primarily in decreasing accidents through educational activities. It endorses no private commercial interest or candidate for political office.

The Council is affiliated with the Chamber of Commerce and operates as the local branch of the National Safety Council. It is a non-profit making organization of public-spirited citizens and employers interested solely in the promotion of accident prevention and the conservation of human life and limb.

The Council shall constantly strive to impress upon the community that the saving of human life and the lessening of cripples and orphans by reducing the causes of accidents is (first) humanitarian and (second) good business. It dedicates itself to the proposition that it is safer to think first than to suffer afterward. Hence, it seeks to eliminate accidents and fire hazards by inculcating through propaganda and instruction this important feature of safety work in the minds of every man, woman and child.

Following is a list of representative committees of the Safety Council.

a. Child Safety.
b. Commercial Motor Fleet.
c. Fire Prevention.
d. Industrial Safety (Illustrated under VI, 3)
e. Police.
f. Statistics.
g. Women's Division.

5. How can we organize to help in the Safety Movement?
   a. Boy Scouts (illustrated under VI, 4).
   b. Girl Scouts.
   c. Junior Safety Council.
   d. Junior Achievement Club.
   e. Organization of a safety council.
   f. Safety squads (outdoor and indoor squads).
   g. Guards working against "jay walking," stealing rides, hailing autos, hanging on street cars and ice wagons, allowing children to ride on handlebars of bicycles.
   h. Accident reporter for building.

B. The Organized Agencies for Fire Prevention

1. Fire department—location of stations, fire alarm boxes, hydrants, apparatus, duties and responsibilities of firemen, uniform of firemen. (Illustrated under VI, 5)
2. Study of fire protection—insurance companies.
3. Help we can give in the prevention and spread of fire.
   a. Crusade against playing with matches.
   b. Learn the use of the fire extinguisher.
   c. Learn Boy and Girl Scout rules in care of camp fires.
   d. Learn how to turn in a fire alarm.
   e. Be careful when on picnics, hikes, etc.
   f. Learn to put out a fire. (correlate with VI-B Nature Study.)

C. Organized Agencies for the Promotion of Health and the Prevention of Disease
(Illustrated under VI, 6)

1. Public health nurses and doctors.
2. School nurses and doctors.
3. City physicians.
4. Free clinics and dispensaries.
5. Hampden County Tuberculosis and Public Health Service.
6. Public and school baths.
7. Hospitals, ambulances.
8. Regulation to supply pure water and sanitary milk.
9. Pure food laws.
10. Laws governing ventilation and sanitation.
11. Street cleaning.
12. Collection of garbage.
13. Department of the Board of Health, inspection of stock yards, dairies, meat markets, bakeries, etc.
14. Quarantine (excellent opportunity in connection with immigration question in geography).
15. Vaccination.
16. What we can do to promote health and to prevent the spread of disease.
    a. Crusade against flies.
    b. Clean-up campaign.
    c. Inspect school yards for cleanliness.
    d. Develop correct personal habits regarding eating, dressing, sleeping, cleanliness, exercise.
    e. Study First-Aid Methods.
       Study Schaefer Method of Prone Pressure Resuscitation.
    f. Acquire a knowledge of hygiene.

D. The Financial Responsibility of the City

1. Cost of fire protection.
2. Study of accident statistics issued by the Police Department and the Safety Council.
3. Cost of police protection.
4. A selection of any one, or more, of the departments of public safety might be made to study cost to the city.
   Note: Subject matter for arithmetic is apparent here. Subject may be treated in a general way, to be developed later in Junior High School.

The following teaching units (VI, 2 to VI, 6) illustrate some of the methods which have been employed in Springfield to carry out the Course in Safety Education in the sixth grade.

VI, 2. A Study of the Springfield and the National Safety Councils

From the Carew Street School, Grade VI B
Miss Edith Sauer, Principal; Mrs. Frances C. Brown, Teacher

A. Situation Out of Which the Study Grew

Our work in geography one morning began the study of the United States. As an introductory study to the States, the question of the most interesting state to us was raised (Massachusetts).

Next we spoke of the most interesting city to us (Springfield). Its population was mentioned. It was stated in the geography text to contain 129,000 persons. One boy said that it was more than that, as he had read it somewhere recently. He and two others were to report on the correct number. They reported 142,300. The class discussed the problems which the increase in population cause. Several problems were discussed; among these, traffic was mentioned. Who meets that problem? Policemen, firemen, and others, were named as those who safeguard the inhabitants of Springfield. One boy said the Springfield Safety Council helped in this work, as a man whom he knew had spoken of it to him.

This aroused the interest of the children as many had seen the safety posters at Memorial Square with the words, "Springfield Safety Council" beneath.

Some pupils had seen these safety posters on the Mohawk Trail; some, in Connecticut; and some, in New York. It was thus seen that the Safety Council was not a local organization, but a part of the National Safety Council.

B. Purpose

The children's interest lead to many questions and to the obtaining of information about the Safety Council's work in Springfield and throughout the country.

C. Execution of the Plan

1. The boys and girls decided to write to Mr. Blanchard, Manager of the Springfield Safety Council, inviting him to talk to us about the local Council. His visit to our room gave us much information.

After this, five posters were made to represent the work being done by the local Council in prevention of accidents on the streets. These posters were made during the drawing period. Groups were responsible for cutting, arranging, and pasting the letters. The pupils had seen the words, "Chamber of Commerce," on the original posters. In this way they learned of the civic agencies working for safety in the city. Paragraphs pertaining to safety were written, using the words on the posters as titles. Many discussions followed which showed interest in observing and reporting on local happenings of the Springfield Safety Council.

2. Narrations written by pupils.

Use Brakes More and Horns Less

As I was walking along the street one day, I suddenly heard the brakes of a car grind. I gave a little jump. Then as I looked toward the street, I saw a little girl, about three years old, not five feet away from the car which had stopped. You could tell that the driver was quite nervous. Just then her mother came out of the store. When she saw the crowd around, she asked her neighbor what the matter was. "Why," said the lady, whose name was Mrs. Sweeney, "didn't you hear that your child was almost killed?" When the mother heard this she fainted. They brought her into the house, and when she felt better they brought her child to her. If all men used their brakes more and horns less as this man did many lives would be saved.

Courtesy Promotes Safety, Practice It

On rainy days, drivers of trucks and automobiles should get into the habit of obeying this sign which has been put up by the Springfield Safety Council, "Courtesy Promotes Safety, Practice It."

Two or three weeks ago this incident happened in front of our house. A car parked on the side of the street was trying to get out. It had taken three quar-

ters of the road. There were several cars coming up behind him, but he had not seen them. The driver of the first car was a careful driver, and did not want to take a chance. The cars behind him were getting impatient and were tooting their horns. So he parked his car, signaled to the car in back of him that he would not have room. The man paid no attention to him and started to pass it, but just then his car skidded and was badly damaged. Whose fault was it? The driver who took a chance."

3. Pupils tried their hands at writing a "Fire Prevention Alphabet," a contest conducted by the *Springfield Union* in coöperation with the Safety Council of the Chamber of Commerce, during Fire Prevention Week. Two pupils in this class won the contest. The newspaper clipping announcing the winners was posted on the bulletin board. Mr. Blanchard wrote each of the winners a letter expressing his appreciation of the good work.

4. The resources of the library were drawn upon for the following:

(1) Origin of the National Safety Council.
   a. When?
   b. Where?
   c. By whom?
   d. Number of councils.
(2) Purpose of the National Safety Council.
(3) Work of the National Safety Council.

Through this work the pupils became more independent, seeking the best information and reporting to the class. In this work, they received instruction and practice in the use of reference books.

We next made a study of the sections which assist in carrying on the work of the National Safety Council. We did this by using the reports of the Cleveland Convention from the *Cleveland Plain Dealer*. On enumerating the sections, we found there were twenty-four, which covered educational, governmental, and industrial work. This gave the class a realization of the many agencies working for prevention of accidents throughout the country. Using the statistics of fatalities taken from reports of the sections at the convention, many original problems in arithmetic were worked out. Class discussions followed in comparing fatalities of 1923 and 1924 and reasons for increase or decrease.

In reading these Cleveland papers, the class found that the headquarters of the National Safety Council were in Chicago. Letters

were written asking for information. As a result, we received *Safety News, Public Accidents,* posters, and pamphlets. The tables and reports of accidents given in *Public Accidents* furnished excellent material for arithmetic work. We found percents of fatalities in the United States for 1923 and 1924, also the number of fatalities per 100,000 from automobiles, steam railroad, street railway, and other vehicles in 1923 and 1924. Through class discussions, reasons for increase or decrease were given. This work covered all fundamentals of decimals. Using the same leaflet, we compared fatalities per 100,000 in Springfield with other Massachusetts cities for 1923 and 1924. In doing this, we continued our study of cities of the United States in the geographical work.

A visit was made to an insurance office, as the class had read of so many insurance companies having delegates at the Cleveland Convention. They were given leaflets on health. This gave them some knowledge about the Life Extension Institute. Another group, visiting the library, gave us the history of the Institute. This report aroused a new interest and keen desire to know more, as we were told that one of our Springfield Business men, Mr. Harold Ley, originated the idea of the Institute.

Many problems in arithmetic were obtained from the reports of the Casualty and Surety Underwriters. The following illustrate problems constructed by the teacher from data in the National Safety Congress Report, 1925.

1. The National Safety Council had its first meeting in 1913. How many years ago was that?

2. There were about 5,000 who attended the National Safety Council Convention in Cleveland. Three thousand of them were safety experts from the nation's industrial plants. What part of the delegates were from industrial plants?

3. There are 4,072 members in the National Safety Council of the United States. There are 400 members outside the United States. How many more members are there in the United States?

4. The National Bureau of Casualty and Surety Underwriters of the United States report traffic fatalities in 158 American cities during 1923 and 1924. The total population of these cities is 32,000,000. The death rate in 1924 was 27 per 100,000. In 1923, it was 28.1 per 100,000. Which year was less and how much?

The following illustrate problems made by the children from data taken from the National Safety Congress Convention.

1. In Great Britain, in 1923, 16,808 disablements from maritime accidents cost $172,000. What was the average cost per accident?

2. The experience of Great Britain in maritime accidents among 371,000 employees during 1923, was 376 fatalities, representing a payment of $395,000. What was the average cost per accident?

6. While reading last year's Bulletins of Safety Education, the class learned about the Safety Council's activities in several cities. The question of the number of cities having Safety Councils arose. A report was made that there were sixty-four active local councils to carry on the National Council's work for safety in the homes and on the streets.

The material from the Library gave the boys and girls the information that there were junior organizations. Using the Bulletins of Safety Education, they read that there were active clubs in Louisville, Kentucky, and Detroit, Michigan. Letters were written to these places for information. In a few days, one boy was greatly pleased to receive a reply from Miss Harriet E. Beard of Detroit, telling of the work being done for safety by the boys and girls of Detroit.

The report of the Cleveland Convention mentioned one speaker from Switzerland. It also stated that cablegrams were received at the convention from France, Germany, Canada, Italy, Great Britain, Japan, China, and South American cities. This led to the knowledge that the work of the Safety Council was international. Using again our leaflet, *Public Accidents*, we compared the number of fatalities per 100,000 in the United States with the number in England and Wales, Scotland, Belgium, New Zealand, Austria, and Canada. A keen interest was taken in finding these countries on the maps, as their fatalities were much less than in the United States.

7. As a direct result of the work, the class dramatized a play entitled, "Father's Safety Information," in which the pupils used, in conversational form, the information which they had reported to the class.

[Note: The text of this play has been omitted for want of space. —*Editor.*]

D. Outcomes

1. Initiative and leadership shown in working out their parts to be given in the dramatization.
2. Responsibility and coöperation in working to obtain information and materials necessary to work out their play.
3. Many subject-matter contacts, both in the present curriculum and from the outside.
4. Many social contacts, both in the classroom and with the community.
5. The project afforded opportunity for complete pupil participation.

E. Bibliography of References Used by Pupils

New International Year Book (1924)
The Americana (1925)
Bulletins on Safety in Industries (issued by National Safety Council)
Leaflet (sent by Mr. Blanchard of Local Council)
Bulletins of Safety Education (1924)
Health Bulletins (Life Extension Institute)
National Safety Calendars (1925 and 1926) (Material on Book)
Report of National Safety Congress, in *National Safety News,* September, 1925.

VI, 3. A Study of Mechanical Hazards in the Industries of Indian Orchard

From Indian Orchard Elementary School, Grade VIB
Miss Ellen Morrissey, Principal; Miss Margaret F. Cole, Teacher

A. Situation

The work was initiated by discussing the number of factories in Indian Orchard and a nearby town. The following question came up: Why are there so many factories in this section? The answer given was that the Chicopee River, near which our community is situated, furnishes power to operate the factories. The pupils were asked how many had relatives working in the various factories. We decided to use the mill, which employs the largest number, as a basis for our study of what is done in factories to insure the safety of the employees.

As this factory employs a safety engineer, an appointment was made with him. From this interview, the principal and teacher obtained much valuable information. A set of lectures on safety was offered for reference. These lectures, being a revelation of the scope and importance of safety work in industry, were an inspiration to us all and gave a more vital urge to the teaching of safety. Our efforts seemed to be linked with a large project, based upon the humanitarian principle that every man has a right to safe working conditions.

The safety engineer said that his work seemed to divide itself along two lines, the educational and the mechanical. Accordingly, this seemed a natural division for our study. It was decided that one room should study the prevention of accident in industry by means of education, and that another room should study the mechanical means of preventing accident and also the hospital service for injured workmen. Each room planned to develop the topics in such a way that the information could be given to the other room.

B. Planning and Execution

A group from the class visited the dam alongside the mill. They reported to the class how the water was used.

The signs on the power plant and at other points about the grounds were reported upon also. These were obvious evidences of care for safety.

To give the entire class a better picture of the whole plant, with its numerous buildings, railroad tracks, and dam, a diagram was drawn on the board. One of the class made a copy of this for reference.

Considering the large number of buildings and the kinds of work carried on here, it was decided that many safety rules would be needed. A list of these, that were suggested by the class, was written on the board.

As Fire Prevention Week came at this time, attention was called to the fact that old mills were built of wood, while newer ones are built of brick or cement. It was developed with the class that laws for the restriction of building construction were made necessary by the loss of life and property by fire. Here questions regarding the making of laws were raised, and an opportunity was given to im-

press the fact that the laws are not made by the governor or president, but by the people, through their voting power.

It was found that laws had been made regarding the location of factories which use dangerous materials, such as explosives. The class was eager to tell that the Fiberloid Company, one of the local industries, has such a factory.

The best materials to be used in public buildings to safeguard against fire were talked over. It was discovered that our school building was made of just such materials.

Another type of public building where many lives were often endangered was cited—the moving picture hall. The safeguards here were enumerated. These and other state restrictions regarding halls were discussed.

The fact that many lives had been lost, even in buildings made according to all requirements, was brought out. They concluded that this might have been because of lack of orderly passing out and that fire drill might have helped. One boy knew that our schools are required to have at least one fire drill a month.

The number of lives lost by fire in a group of cities was obtained from the course of lectures loaned by the safety engineer. These figures were used in arithmetic to find the average for each city. This number was compared with the known number of deaths by fire in our own community. A clipping regarding the loss of property by fire in the United States was brought in by a pupil. The class worked out from the figures given that nine-tenths of the fires are preventable. The amount of preventable loss per hour was obtained. The wage per week of mill workers was volunteered by members of the class. Using twenty dollars as the average wage, the class found how many weeks and then years it would take such a man to earn the amount that could be saved each hour. They found that such a man would be almost sixty-six years old before he could have earned the amount, if he started work at sixteen.

The class learned that the local factory buildings were of a type well protected against fire, built of brick with fireproof doors and windows. However, with so many buildings and about 47,000 spindles, it was decided that there must be many hazards. In connection with this, jute, the raw material used in this plant, was looked up by a group of pupils, who went to the library and re-

ported to the class. Much interesting material on the growth of jute and the preparation for manufacturing was obtained. The route of travel by which the jute is shipped from Calcutta, India to the local factory was worked out by the class. A pupil brought in samples of the jute in the different stages of manufacture.

We learned that jute itself at certain stages may involve two hazards. The first is the danger of tetanus poison through an abrasion of the skin by jute in its raw state. This is due to the process of soaking it in stagnant pools in India. This hazard has been practically eliminated by the insistence of the Safety Engineer on the immediate use of anti-tetanus serum. An interesting discussion of serum, especially in diphtheria cases resulted. The second hazard in connection with jute made an interesting connection with the study of climate. As it comes from a dry climate to a damp river valley, expansion takes place and the danger of destruction of storehouses has to be guarded against by storing it in small isolated stock houses.

The power by which the mill is run was taken as the first mechanical hazard. The class knew that electricity was dangerous and that wires used for it were covered. Some could tell that rubber was the material generally used. A connection was made with the rubber industry of South America.

A book of rules used in the safety work of the mill was borrowed. From this, a member of the class reported the different kinds of operations. Different pupils were assigned the rules for the several operations and reported them to the class. From these reports, from information obtained outside, from pictures, and from posters, lists were made of hazards and mechanical devices and safeguards. These included switch boxes, sprinklers, belt enclosures, pulley enclosures, gear cages, lattice frames, and goggles. These were explained in detail.

After the safety rules for the mill had been discussed, the class decided that it would be a good plan to make a list of those that applied to schools. To these, they added several that would be suitable for schools only.

The class decided that the rules had been made because the safety engineer had discovered the causes of accidents. We learned that analysis of the causes of accidents is a large part of the safety

engineer's work. Something of the method of analysis was discussed. Such causes of accidents as the following were developed:

1. Carelessness.
2. Poor Protection of Machinery.
3. Poor Light.
4. Ignorance.
5. Poor Health.
   a. Fatigue.
   b. Poor eyesight.
6. Disobedience.

Means of preventing these were also developed as follows:

1. Inspection of Buildings.
2. Safety Engineer.
3. Safety Signs.
4. Safety Rules.
5. Mechanical Devices.
6. Hospital Rooms.
7. Enforcement of Rules.

At this point the class attempted to assemble their information into a presentation. It was decided that the material should be made into a series of paragraphs, to be illustrated whenever possible. Some of these paragraphs were developed in class as oral compositions; other were developed from an outline into written compositions either as class-work, or as seat-work.

Some of these points were made particularly vivid by the use of posters. For example, an interesting bit of dramatization was made from the information given on a poster regarding the use of goggles in machine shops. Another poster, bearing the caption "Wise Men Use the Safety Devices of their Trades" and showing a baseball umpire, catcher, and batsman fully protected, was used with telling effect during the World's Series.

An opportunity for the approach to another topic included in our safety outline, "Hospital service to care for injured workmen in industrial plants," came about through the meeting of the principal and the safety engineer of another large local industry at a social gathering. The safety engineer was very much interested in the safety work of the school and invited a group from our room to visit the First-Aid Room at the plant of the Chapman

Valve Manufacturing Company. Before making the visit, the group was instructed to note these points:

1. Kind of room.
2. Equipment.
3. People.
4. What happened.

An interesting demonstration of First Aid had been arranged. The pupils had an opportunity to see the nurse give treatment for an injury to the eye, and the use of the tourniquet was demonstrated.

The safety engineer explained the meaning of a large bulletin which was called "The Safety Calendar." Upon this were the names of the different departments. Beside each were a number of gold stars. Each star represented a month without an accident in that department. Alongside the Iron Foundry was a green strip with the figure one on it. This meant that there had been one accident in that department this month. Below these were recorded the number of accidents and the number of days of absence for the years since the employment of safety methods. Both showed a very marked improvement.

The pupils also noted that safety posters and placards were to be found upon each door and clock that they saw.

A visit to the safety engineer's office was made. Here the pupils were shown many of the posters used in the safety work. One which appealed particularly to the pupils read, "Yes, We have No Accidents To-day."

A number of other safety devices were shown and their uses explained to the children. Among these were several different kinds of goggles, sleeve protectors for lifting rough and heavy pieces of metal, special shoes with copper toes for protection against the fall of heavy objects, and a number of different kinds of gloves to be used in handling metal in its various stages. These will be discussed more in detail in connection with the metal trades when we study about Pittsburgh and Birmingham. The safety engineer offered to come to the school to talk to the class about the hazards of the metal trades.

Upon the return of the pupils to the class, a report of the visit to the First-Aid Room was given. The use of the tourniquet was

reproduced so adequately that the child's arm changed color. The cause for the change, the rush of red blood, and the return to the normal color were discussed with great interest.

A diagram of the First-Aid Room, showing the equipment, was made upon the board. To give it even more reality, the First-Aid Room, with its equipment, was worked into the dramatization showing the use of goggles as a saftey device.

C. Outcomes

From this work on safety there have been many results of importance in the development of the class as a whole and of individual pupils.

Many clippings and pictures relative to our subject were brought voluntarily. Some of these clippings were used for silent reading and reporting, others for finding essential points. Some of the pictures were used to illustrate the paragraphs, others were sorted into groups under such headings as Safety Devices At Home; At School; At Work; At Play. These were then pasted into a notebook to be kept for future use.

Many posters were brought, displayed, and the meanings explained, and posters were made to illustrate some of the safety rules for schools.

This work naturally brought in the use of many new words which gave opportunity for vocabulary building. Many of these words were used for spelling, as:

1. Prevention.
2. Transmission.
3. Insulate.
4. Mechanical.
5. Conflagration.
6. Hazard.
7. Collapse.
8. Expansion.
9. Avoid.
10. Analyze.

In language work a better conception of unity in paragraphs was displayed, and improvement was noted in beginning and ending sentences. Through the many interesting discussions there was a growth of power in oral language.

As a larger result it is certain that safety occupies a place of much greater importance in the mind of each pupil than before. They now realize that it is a matter which involves the spending of millions of dollars and which occupies the best thought of trained

executives and that, therefore, their work is a part of a large and interesting whole.

VI, 4. A Study of the Boy Scouts and of First-Aid Methods

From Carew Street School, Grade VIB
Miss Edith Sauer, Principal; Miss Hazel Ferguson, Teacher

Children's Day at the Eastern States Exposition had served its purpose. The pupils entered school the following morning with many ideas. In the course of conversation about the Exposition, the pupils' interests were aroused by the wonderful work of the Boy Scouts. They had seen the Boy Scouts demonstrate First-Aid methods, using First-Aid kits. The Boy Scouts had helped protect the lives and property of the 60,714 people who had attended the exhibit that day.

"Be Prepared" seemed to be a noble scout motto, and the idea of living up to it was eagerly grasped by the class. Pupils were enthusiastic to find out more about First-Aid methods and the Boy Scout movement. This problem arose: "How could the pupils make themselves valuable to the community by conserving the lives of their schoolmates in the future?"

The pupils were on the alert for any information they might gather at home, at the library, and through other Scouts. Clippings from newspapers were brought in and kept in a large envelope for reference. Bulletins from insurance companies and pictures were also contributed. This material was kept on the library table where the pupils had easy access to it and they utilized it to its fullest extent. The pictures were grouped attractively on the bulletin board. The slogan, "A bandage in time saves nine," was written on the board.

Through class discussion, the pupils planned to find out how to alleviate the many sufferings caused by accidents at home and in school.

A. Studying the Boy Scouts

The first question to be considered was: How could they find out about the Boy Scout Movement? There were one Boy Scout and two Girl Scouts in the class. During oral language lessons, they

told what their troops had done. They explained both the work and the pleasure trips.

These talks led to the history of the Boy Scouts. The pupils read "The Modern Knight—The Boy Scout" found in Bolenius' *Sixth Reader*. This was supplemented by the history work. Knighthood was discussed. Gordy's *American Beginnings in Europe*, the child's history textbook, contained much of the necessary information.

"Who started Boy Scout work?" was the next question. Encyclopedias were used.

The following questions were prepared by the class:

1. Where did the Boy Scout organization begin?
2. How was it started in America?
3. How have the Boy Scouts served their country?
4. Why do they make good citizens?
5. How many Boy Scouts in the United States?

The following facts were found as answers to the above questions:

1. Lieutenant Robert Baden Powell organized the Boy Scouts in England in 1908. Mrs. Juliette Low of Savannah visited Mr. Baden Powell in England and later successfully started the Girl Scouts in America.
2. The organization of the Boy Scouts in America was incorporated February 8, 1910, and authorized by an act of Congress in June, 1916.
3. The Boy Scouts did the following work during the World War:
   a. Ex-scouts served splendidly in the American Expeditionary Forces.
   b. Made better soldiers because they were trained to be men.
   c. During the Liberty Loan campaigns they sold bonds to the amount of $301,000,000 and War Saving Stamps over $50,000,000.
   d. Had war gardens, distributed literature, located black walnut trees, etc.
4. The Boy Scouts make good citizens because they obey the twelve scout laws and are then placed on their honor. They do a kind deed every day.
5. Boy Scouts is the largest boys' club in the world. The active membership is 500,000 and the associate membership is over a million.

Other interesting facts noted were that each year since 1919 a Boy Scout Week has been observed, and that the Boy Scouts of Springfield took care of 750 First-Aid cases at the six stations established throughout the grounds at the Eastern States Exposition.

The pupils decided to act as Safety Scouts in school and to aid the nurse and school doctor.

B. First-Aid Lessons

The steps in teaching First Aid were as follows:

Lesson 1

Aims:

1. To teach the meaning of First Aid.
2. Ability to discriminate between bravery and foolhardiness.
3. Emergencies mean highly dramatic and emotional moments.

Verbatim report of lesson (all but accepted answers have been eliminated to save space):

Ques. Do you know of anyone who has never had an accident of any kind?

Ans. No. (The pupils realized then how important First Aid is.)

Q. What is First Aid?

A. It is the care and protection you give a wound or injury immediately after the accident occurs.

Q. When should we call a doctor?

A. Only when the injury is serious.

Q. Does First Aid take the place of a doctor?

A. No, it is not a substitute.

Other Pupil. My chum fell on a banana peel and broke his arm.

Q. How could that accident have been prevented?

A. Careful of peels.

Q. What would you have done for the boy?

A. Made him comfortable and cheerful and called a physician.

Q. Why couldn't you have aided him?

A. We should never set bones. That is the doctor's work.

(Pupils told many other experiences and each was discussed.)

Q. Why do we have First Aid?

A. To prevent the serious after effects.

Other Pupil. I cut my finger yesterday and it is healing fine.

Q. What did you do for it?

A. My mother painted it with iodine and this cleaned it.

Q. What else could she have used.

A. If the bruise or cut contained pebbles, wash with alcohol and then apply iodine.

Q. Why not use water?

A. Because it contains germs.

Q. Why use iodine?

A. It kills the germs so we will not have infections.

Q. Why was tending to that cut an act of bravery?

A. Prevented pain and the wound healed quickly.

Q. What is the result of foolhardiness?

A. Many limbs and lives have been lost.

Q. What kind of wounds should be treated?

A. The very smallest.

(Pupils related their experiences. Teacher told story of two little girls in bed: A match was lighted to find a pin. Nightdresses caught fire. Both knew what to do. One became excited and as she wrapped the blanket around her she stumbled and the blanket unrolled. She was burned seriously.)

Q. What did the other girl do?

A. Lay down and wrapped herself in a blanket.

Q. Why did she lie down?

A. Fire spreads upward more quickly than sideways.

Q. What made the fire burn?

A. Oxygen.

(At this point it seemed wise to perform the oxygen experiment and consider that information in relation to putting out a fire. This correlated the First-Aid work with our nature study.)

Q. How should the girl have wrapped the blanket around her?

A. From the head toward the feet.

Q. Why?

A. So the flames wouldn't be forced out toward the face.

Q. What could have been used instead of a blanket?

A. Patient could roll, use a coat, carpet, etc.

Q. What lesson does this story about two little girls teach us?

A. Be calm, courageous, and have presence of mind. Don't lose your head. Be quiet and cool and give well-intentioned aid.

Q. Which is more important, to learn how to avoid accidents or to learn what to do?

A. Both are important because they are necessary in our lives.

The class was dismissed after other similar stories were narrated and discussed. They were to find out for the next lesson how the Boy Scouts had lessened suffering at the Exposition.

Lesson 2

Aim:

To teach First Aid for minor injuries.

Verbatim report of lesson:

Ques. What is the first thing to do if one is injured?

Ans. Be calm and have one boss.

Q. What injury did you see treated by the Boy Scouts at the Exposition?

A. Burns.

Q. What is the first thing to do in case of burns?

A. Keep out the air.

Q. How can we accomplish this easily?

A. Place the burned section in water.

Q. What ways have you seen the Scouts or your mother treat burns?

A. Castor oil, lard, glycerine, cold cream, vaseline, baking soda, and water were mentioned.

Q. When do you know which remedy to apply? (Various answers showing a wide range of opinions.)

Q. What does a burn do to the skin?
A. Turns red; some blister, others burn the skin.
Q. Which happens first?
A. Turns red.
Q. Second? Third?
(Conclusion: These are called first, second, and third degree burns.)
Q. How should each be treated?
A. First and second degree burns are treated with baking soda and water.
Q. How is a third degree burn treated?
A. Oils as mentioned above.
Q. Why shouldn't butter be used?
A. Contains salt which causes intense pain.
Q. What kind of burns do you get at the seashore?
A. Sunburns.
Q. What degree burns are they?
A. First and second.
Q. How treated?
A. Soda and water.
Q. What other oil may be used on third degree burns?
A. No one knew.
Q. Where can we find out?
A. Fire station.

(Note: Several pupils go to the North Street Fire Station and return with information. Carron oil is used and is carried on all fire engines. It is made of half limewater and half linseed oil. The fire chief carries the large emergency kit.)

Q. What should be done after the oil is applied?
A. Bandage the burn.
Q. How?
A. (Pupils suggested different ways.)
Q. How can we find out the right way?
A. Have Boy Scouts come to school and show us.
Q. Where does your mother keep her bandages, oils, etc.?
A. In the medicine cabinet.
Q. Where can we keep the ones we are to use?
A. (Many answers, as empty candy box, table drawer, etc. One pupil suggested making a First-Aid kit similar to the ones used at the Exposition.)
Q. Where can we make the kit?
A. In manual training class.
Q. How?
A. Have Boy Scouts bring a First-Aid kit when they come to demonstrate bandages, etc. This could be used as a sample.

(A teacher in the building had a nephew who was a Boy Scout. He was asked to bring a friend for the demonstration.)

Other Lessons

Before the Boy Scouts could demonstrate bandaging, other emergencies had arisen.

Three accidents occurred in the schoolroom and on the playground. Lessons were taught in the same manner as the above.

Lessons taught:

Fainting	Choking
Toothache	Hiccough
Slivers	Use of Antiseptics

Representative Demonstrations

Teacher: This afternoon these two Boy Scouts are going to demonstrate bandaging. They have brought with them these two bandages. (Teacher holds up a roller and a triangular bandage.)

Q. What is this bandage called? (Exhibits bandage.)

A. Roll bandage.

Q. What is the shape of the other bandage?

A. Shaped like a triangle.

Q. What name can we give it?

A. Triangular bandage.

Q. Of what have you seen triangular bandages made?

A. Handkerchief.

Teacher: You may in case of an emergency use a handkerchief. Fold it diagonally like this (demonstrates) and it is not necessary to cut it.

Boy Scout: We often use our neckerchiefs for triangular bandages.

Teacher: A triangular bandage is used more often than the roller bandage.

Q. Of what have you seen the doctor, the nurse, or your mother make bandages?

A. (Various answers, as linen, sheets, pillow cases, old dresses, underwear, unbleached muslin, cotton, gauze, calico, etc.)

Q. How do these bandages feel?

A. Soft.

Q. What makes them soft?

A. They do not contain starch.

Q. Why shouldn't bandages contain starch?

A. They shouldn't contain starch, because a bandage must be soft to lie flat and smooth. It will bandage easier if soft.

(Teacher exhibits roll of sterile gauze.)

Teacher: How many have ever seen this used? (Four hands were raised.)

Q. What is it called?

A. Sterile gauze.

Other pupil: My mother keeps two or three rolls of it on hand. She has some narrow and some wider.

Another pupil: My mother buys a large piece. She cuts it and rolls it herself.

Q. What is sterile gauze?

A. (No correct answers given. Pupils consult dictionary and find that sterile means free from germs. Therefore a sterile gauze is a gauze free from germs.)

Q. How is it made sterile?

A. Baked to kill germs. It is then rolled and no one touches it.

Q. If you didn't want to buy sterile gauze, how could you make some?

A. Bake some cloth in the oven or boil it and then let it dry. Use white cloth.

Q. Of what must we be careful?

A. Not to handle it any more than possible.

Q. What have you seen bandages used for?

A. 1. To hold dressings in place.
2. For slings.
3. To put over cuts.

Boy Scout: Before I show you how to bandage you must know how to make a square knot. (Demonstrates with rope.) An easy way to remember it is: *left end over right and right over left.* Always test a square knot by pushing the ends up.

Q. Why do we use that kind of knot in bandaging?

A. 1. It is flat.
2. It looks neat.
3. It is comfortable.

Note: (Later the pupils were divided into groups. They practiced making the square knot.)

Boy Scout: The first bandage I am going to demonstrate is the finger bandage. (Boy Scout demonstrates.)

Q. How is the bandage rolled around the finger?

A. Firmly.

Q. Why should it be firm and not tight?

A. If it were tight, it would stop the circulation of the blood.

Q. Why should we be careful not to have the bandages loose or bulging at the tip of the finger?

A. If a person worked at a machine in a factory the bandage would get easily caught in the machine. This would be dangerous.

(Boy Scout demonstrates two ways of fastening the bandage:
1. By splitting end.
2. Using adhesive tape.)

Boy Scout: The second bandage I am going to show you is for severe cuts or burns on the hand. This time we use the triangular bandage. (Demonstration takes place.)

Q. Why is this a good bandage to use for severe cuts or burns on the hand?

A. Keeps the air and germs away from wound until doctor tends to it.

Boy Scout: The third bandage I am going to show you is the head bandage. (Demonstration.)

Boy Scout: Another common bandage is the tourniquet. We use this when an artery has been cut.

Q. What is an artery? (Note: Pupils had studied about arteries in their hygiene lesson.)
A. An artery is a vessel that carries the blood from the heart.
Q. What does the heart do?
A. Pumps the blood.
Q. What brings the blood back to the heart?
A. Veins.
Q. How can we tell whether a vein or an artery is cut?
A. If the blood spurts out with each heart beat, it is an artery. If it flows out, it is a vein.
Boy Scout: If you were out in the woods and didn't have a triangular bandage what could you use?
A. Necktie, belt, stocking, piece of shirt, etc.
(Boy Scout demonstrates use of tourniquet.)
Q. Why place the bandage above the cut?
A. Because the blood is coming from the heart.
Q. Why place a pad on the artery?
A. To get more pressure.
Q. What could be used for a pad?
A. Eraser, stone, cloth, pencil, etc.
Q. How long should we use the tourniquet?
A. Fifteen minutes at a time.
Q. Why?
A. To prevent poisoning.
Boy Scout: Do not use a tourniquet unless it is a severe case, because sometimes more harm is done than good. Send for a doctor as soon as possible.
(Note: After each demonstration, the patient walked up and down the aisles so the pupils could examine the work more closely.)
Boy Scout: The last thing I am going to demonstrate is the Prone Pressure Method. (Pupils look up meaning of prone.)
Q. When do we use this method?
A. 1. Overcome by gas.
2. Electric shock.
3. Near drowning.
(A large sheet is spread on the floor and the Boy Scout demonstrates.)
Q. What is the first thing to do?
A. Lay patient on his stomach and remove false teeth, gum, mud, etc., from mouth.
Q. After the mouth is emptied, what should you do?
A. Keep the tongue hanging out.
Boy Scout: Turn the patient's head in the direction the wind is blowing. To determine the direction of the wind wet your finger and hold it in the air. Next place one of the patient's arms sideways. Spread the fingers of the other hand and rest the head on them. Nose is placed between the fingers. Scout straddles the patient and finishes

demonstrating by pressing near the lower ribs and counting 1, 2, 3,—4, 5, 6. Make pressure and the springing back regular. Do not miss a count. Get a doctor or a pulmotor as soon as possible. Don't leave the patient to go for help, as the first few minutes are important.

An easy way to remember the count if the person is drowned is, "*Out* goes the water, *In* comes the air."

If overcome by gas think,
"*Out* goes the bad air, *In* comes the good."

Q. How long should you use the prone pressure method?
A. Several hours, or until you are sure the person is getting better or is dead.

After the Boy Scouts had demonstrated the ways of bandaging they explained the use of the articles in the Red Cross kit they had brought with them. Each child had a chance to examine the kit. A list was made of the articles it contained.

Construction Work Growing Out of Project

1. Safety-First Kit.
   - A. Constructed in Manual Training Class.
     1. Dimensions 4″ by 7″ by 9″.
     2. Made of mahogany.
     3. Resembled a small valise and contained a handle so it could be carried to different places conveniently. Kit was stained and polished.
   - B. Compartments.
     1. For medicines.
     2. For bandages.
   - C. Contents. (Supplied by pupils.)
     1. Sterile gauze (different widths).
     2. Roll and triangular bandages.
     3. Finger dressings.
     4. Picric acid gauze for burns.
     5. Safety pins.
     6. Sanitary drinking cups.
     7. Sanitary towels.
     8. Needles (for slivers).
     9. Scissors.
     10. Pinchers.
     11. Soap.
     12. Iodine and iodine swabs.
     13. Aromatic spirits of ammonia.
     14. Oil of cloves.
     15. Carbolated vaseline.
     16. Carron oil.

17. Alcohol.
18. Zinc oxide.
19. Hydrogen peroxide.
20. Material for tourniquet.

II. First-Aid Chart—A record of injuries and First-Aid treatment.
   A. The words "First Aid" were printed on squared paper and then cut from red paper.
   B. Words were printed on large white paper forming title of the poster.
   C. Red border cut and pasted along edges.
   D. Remaining space, bordered with thin red strips of paper, was divided into five columns. The columns contained this information.
      1. Name of pupil who treated injury.
      2. Room number of patient.
      3. Place of accident.
      4. Injury.
      5. Treatment.

This chart enables the pupils to see accurately the many ways they could aid their schoolmates. Ten accidents were treated the first week.

The records were as follows:

Name	Room	Where Accident Occurred	Injury	Treatment
Caroline Newsworthy	13	Playground	Gash on knee and arm	Iodine
Eleanor Albert	3	Near school	Cut on forehead	Cleansed it
Caroline Newsworthy	13	School	Sliver	Iodine
Harold Yessin	5	Playground	Cut on ear	Iodine
Marcel Bouchard	11	Playground	Cut on lip	Cold water
George Bushey	13	Schoolroom	Nosebleed	Key and cold water
Peter Sutkovoy	13	Playground	Cut	Iodine
Stella Winning	8	School	Toothache	Oil of cloves
Gussie Levin	7	Playground	Skinned knee	Iodine
Raymond Jakuboski	7	Schoolroom	Broken finger nail	Bandaged it

Correlations with Other Subjects

These First-Aid problems extended over a period of several weeks. The questions following the problems opened the way to many fruitful discussions. The work was correlated with the subjects mentioned below:

1. Arithmetic.
   a. Pilot Arithmetic Book II, pages 171-173 and 242-243. The Scout problems found on those pages were solved.
   b. A new price list was secured and compared with one in our book.
   c. The pupils made and solved other problems, basing them on figures contained in Boy Scout articles found in magazines and newspapers.
   d. The pupils also found the cost of equipping First-Aid kit.
   e. Sample Scout examples made by VI-A Pupils:

The Boy Scouts received from the Community Chest the following amounts:

Springfield gave	$12,300
Worcester gave	10,300
New Bedford gave	6,580
Hartford gave	12,000
New Haven gave	14,000
Bridgeport gave	9,815

Find the total amount these cities gave.

The cost of equipping our First-Aid kit was:

Bottle of iodine	$.10
1 ½″ sterile gauze	.11
3 1″ sterile gauze	.21
Peroxide	.10
Oil of cloves	.10
Cotton	.25
Adhesive tape	.15
Aromatic spirits of ammonia	.25

Find total cost. (Note: Other supplies were given by the pupils.)

2. Language.
   a. Oral.
      (1) "What First Aid Means to Me."
      (2) "How We Constructed the First-Aid Kit."
      (3) "History of Boy Scouts."
      (4) Other topics were selected and were given in three-minute speeches.
   b. Written.
      (1) Letters of thanks to the manual training teacher for helping them with the First-Aid kit.
      (2) Letters of thanks to one of the supervisors for lending them some Red Cross material.
      (3) Description of scene on sand table.

(4) Picture stories.
(5) First-Aid stories dictated.
(6) Original First-Aid stories.

3. Literature.
   a. Life of Clara Barton found in:
      (1) *Modern Americans,* page 65.
      (2) *Our Town and Civic Duty,* page 222.
   b. Life of Florence Nightingale.
      (*For the Children's Hour,* Book III.)
   c. The relation of Mr. Hoover to safety was sought out from several books.
   d. Topical outlines were made and stories written from topics.
4. History.
   Chivalry in the Middle Ages.
5. Science.
   a. Germs, arteries, etc. Information found in *Health Habits.*
   b. Oxygen experiment performed, as previously mentioned.
6. Other reference materials.
   a. Scout handbooks.
   b. First-Aid booklets.
   c. Magazines, books, and newspapers.

Outcomes

1. Readiness to do a good deed everyday.
2. Training themselves to avoid accidents.
3. Respecting the rights of others in the schoolroom and on the playground.
4. Respecting and obeying laws of the schoolroom.
5. Aiding the traffic officer.
6. Promoting cleanliness.
7. Preparing for the actual responsibility of giving First Aid.
8. Response to duties.

Improvement in Methods of Work

1. Better use of reference books.
2. Skill in handling tools.
3. Pupils put into practical use their knowledge of First Aid by actually applying it in emergencies in school.
   (First-Aid kit was given to the school to be used by other classes.)
4. Organization of Boy and Girl Scout Troops.

BIBLIOGRAPHY OF REFERENCES USED BY PUPILS

	Name of Book	*Author*
1.	Emergencies, Book II	Charlotte Vetter Gulick, The Gulick Hygiene Series.
2.	Safety First for School and Home	Harriet E. Beard.
3.	American Red Cross Abridged Text Book on First Aid (2nd edition)	Major Charles Lynch.
4.	Compton's Pictured Encyclopedia	F. E. Compton & Company.
5.	Prompt Aid to the Injured	Alvah H. Doty.
6.	First Aid in the Home	Major Charles Lynch, Metropolitan Life Insurance Company.
7.	First Aid (Booklet)	Published by Prudential Life Insurance Company.
8.	The Health Book	Royal S. Copeland.
9.	Education in Accident Prevention	E. G. Payne.
10.	Boy Scouts of America	Official Handbook for Boys.
11.	Boy's Life	Magazine.
12.	Scouting	Magazine.
13.	Scouting for Girls	Official Handbook of Girl Scouts.
14.	The American Girl	Magazine.
15.	The Trail Maker	Girl Scouts' Official Magazine of Massachusetts.
16.	Red Cross Magazine	American Red Cross.
17.	Red Cross Stories for Children	Georgene Faulkner, for the American Red Cross.
18.	Junior First Aid Legion Handbook (Advertisement, but very good.)	Harry W. Gentles.
19.	For the Children's Hour, Book III	Carolyn Sherwin Bailey.
20.	How to Live Long	Metropolitan Life Insurance Company.
21.	Boys' and Girls' Sixth Reader	Emma Bolenius.
22.	American Beginnings in Europe	W. F. Gordy.
23.	Pilot Arithmetic, Book II	Marsh-Van Sickle.
24.	Modern Americans	C. M. Sanford and G. A. Owen.
25.	Health Habits	M. V. O'Shea and J. H. Kellogg.
26.	Our Town and Civic Duty	Jane Eayre Fryer.
27.	Boy Scout Series (Fiction)	Walter Prichard Eaton.
28.	Girl Scouts in the Adirondacks (Fiction)	Lillian Roy.
29.	From Tenderfoot to Scout (Fiction)	Anna C. Ruddy.
30.	Bob's Hill Series (Fiction)	C. P. Burton.
31.	Boy Scout Series (Fiction)	Burges.

VI, 5. A Study of Causes of Fires in Springfield and Their Prevention

From Armory Street School, Grade VIB
Mr. Henry E. DuBois, Principal; Miss Mildred E. Wells, Teacher

Early in October a Fire Prevention Proclamation, issued by the mayor of our city, together with a pamphlet issued by the Safety Council, was read in the classroom. The pamphlet told of the appalling loss of over $500,000,000 yearly, to our country, caused by fire alone. Our own city, Springfield, had an annual loss of over $900,000 in the year 1923. These figures aroused quite an interest in the class and, as October 4 to 10, 1925, had been proclaimed Fire Prevention Week, it seemed the time was ripe to talk on this subject.

As the class talked it over, they decided to find the reason for such a tremendous loss, how some of these fires might be prevented, and to learn what each of us should do in case of fire.

A class discussion followed, and ways were planned in which they might get material to work with. The following agencies were suggested: the Springfield Safety Council, the National Fire Underwriters, and the City Fire Department.

The teacher suggested making something concrete for the classroom, and then came the idea of posters and a sand table. After thinking of all the things necessary to make the sand table effective, they decided it was not practical. A map of the school district was voted to be the best idea. Finally, the thought of using a large piece of white oilcloth, with black paint to designate streets, black headed pins for hydrants, and red headed pins for fire alarm boxes, was suggested and seized upon. Another child suggested having a class program in which they might give talks upon Fire Prevention. Someone else suggested asking the Fire Chief to send someone from the department to talk to us about fires.

Following these suggestions, we had several lessons on practical letter writing. The children wrote their own letters, and the best one of each set was mailed. The result was that we received numerous pamphlets, posters, stickers, and statistics, so that we had all the material we could wish for.

After preparing a program of four-minute original talks on such subjects as "Why We Have Fire Prevention Week," "Causes

of Fires," "Carelessness," "What to Do in Case of Fires," "How to Put Out Certain Kinds of Fires," and "When Fire Risks are Greatest," they conceived the idea of inviting another sixth-grade class in the building to hear them. A written letter of invitation was sent to them by the class. Then they wrote again to the Fire Chief, asking if he could send a speaker to be present at this program. The result was a very interesting hour, in which the children talked of what they had learned, and showed the posters they had made and collected. This was followed by a talk from Capt. Strong of the Fire Department. This work impressed both the class and the visitors.

These four-minute speeches were prepared by the children who were to give them from the wealth of material we had received. They were first given before our own class and corrections and suggestions for improvement were made by the pupils.

Later in the week, the same program was given before two other classrooms in our own building.

A local paper published an alphabet, called the Fire Prevention Alphabet, which was brought into the classroom. This prompted the idea of making an original one. We spoke of the meter of the lines and how to get the rhyme. We took a few letters and worked out rhymes together. Then each pupil was given one letter to make his own rhyme. The next day we put them together. Many were all right as presented. Others were not. If the class could suggest improvements, the rhymes were worked over. The following alphabet was thus made by the class:

A is for Ashes in a barrel of wood,
If they had been in tin, the house might have stood.

B is for Bonfire on the Fourth of July,
If the wind's blowing hard the sparks will fly.

C is for Christmas and Christmas night,
When the tree falls over, the house is alight.

D is for Damages done by fires
That were kindled by rats gnawing the wires.

E is for Electric Irons in bungalows snug,
Be sure when you leave, that you pull out the plug.

F is for Fires that cost so much.
Don't leave matches for children to touch.

G is for Gasoline too near the stove.
If you're not very careful, it will explode.

H is for Halloween and the burning of tires
Which is always so dangerous for all of its fires.

I is for Injuries caused by a fall.
Be sure to keep rubbish out of the hall.

J is for Jumping from the window of a house
That caught on fire from the work of a mouse.

K is for Kerosene, the villainous lout
To be taken into a man's house and then burn him out.

L is for Lamps that may overturn
Where little children may be left to burn.

M is for Matches, our friends you know,
But carelessness makes them our greatest foe.

N is for Neatness and things well kept.
So see that your chimney is always well swept.

O is for October with its leaves and its fun
When runaway bonfires are most easily begun.

P is for Prevention of Fires and loss,
Which makes U. S. poor from the millions they cost.

Q is for Quickness of firemen brave
Who with their courage our lives will save.

R is for Rubbish and waste papers thrown around,
Where a cigarette butt may be thrown to the ground.

S is for Searchlights that people should use
When they look in the closet to find their old shoes.

T is for Terrible fires that we've had.
For all the homeless people we feel very sad.

U is for our Union, long may it live,
And less of its fortune to the Fire Demon give.

V is for the Villain who will throw a cigar
In a garage and destroy his friend's car.

W is for Watchman who is not on guard
When a fire breaks out and the wind's blowing hard.

X is for Extinguisher, which in all buildings should be
Where a lighted match may be thrown carelessly.

Y is for Youngster who should not play near
The fires that destroy property every year.

Z is the Zany whose foolishness is seen
When he cleans his clothes in the house with gasoline.

Next came the making of the oilcloth map of our school district. In arithmetic class we planned its size, 3′ 9″ by 4′ 6″. One child had bought oilcloth and told us it cost 50 cents a yard, also where to buy it. We figured the cost of 1¼ yards and bought the material. A boy brought in two round sticks 1¼ yards long which were tacked at each end, and it was hung on the wall. Water colors were suggested for making the black lines for the streets, but they found that it would not flow on the oilcloth. Oil paint was suggested and found to be practical. The streets were marked off in black lines about one-half inch wide. Each child put in his own street and printed its name on it. The pins suggested for fireboxes and hydrants were discarded. Someone suggested that they would be likely to fall out as we often moved the map. One boy thought that round red dots could be used to represent the hydrants and red crosses to represent fire alarm boxes. This idea was accepted. As far as was possible, each child put in his nearest hydrant and fire box and numbered it.

During our language work many slogans and rules for Fire Prevention were worked out, such as the following:

Slogans for Fire Prevention

Carelessness causes fires.
Carefulness prevents them.
When fires go up, nations go down.
One tree makes a million matches, but one match can destroy a million trees.
Gasoline is dangerous.
Keep hallways clean.
Take plug out of iron when leaving.
Clean chimneys once a year.
Use a metal ash can.
A fire started with kerosene is dangerous.
Flannelette will burn if too near the fire.
Carry lamps carefully.
Keep matches in a tin box.
Put fires out before leaving camp.
Fire is an enemy and a friend. Keep it a friend.
Remember, all fires were small when they started.
Remember, every day is Fire Prevention Day.

DONT'S for Fire Prevention

Don't hang clothes over stoves.
Don't keep rubbish under the stairs.
Don't clean clothes in the house with gasoline.
Don't allow swinging lamps or gas brackets near a window or curtain.
Don't start a bonfire near a building.
Don't light a match to see in a closet or attic where clothes are kept.
Don't throw gasoline in a sink.
Don't start a fire with kerosene.
Don't polish a stove while there is a fire in it.
Don't fill a lamp while it is lighted.
Don't allow children to play with matches.
Don't pack rubbish and oily rags in a barrel.
Don't put hot ashes in a wooden barrel.

Talks were given and compositions written on such subjects as "How to Ring in a Fire Alarm," "Some Ways in Which Springfield Could Use the $900,000 Wasted by Fire," "What I Have Learned About Preventing Fires," "Some Fires I Have Seen," etc. These proved very interesting.

The class made a scrap book of clippings and pictures taken from newspapers and magazines of fires occurring during the week. These articles were read to the class, the causes of the fires noted, and the losses commented upon. The different cities were also located on our geography maps.

In drawing, we used our slogans in making of posters, and a large variety of posters told their own story.

In arithmetic we used the statistics to make practical problems for comparison. Per capita fire losses were found for cities of the same size as Springfield and our city was found to have one of the greatest annual fire losses. Many of these problems were made by the pupils themselves.

In spelling, the class suggested words which were needed for written work related to our project.

In discussing forest fires we were prompted to find where the large forests are in our country, and it has suggested the study of the life of a forest ranger in connection with our geography work.

A fireman from a nearby engine house demonstrated to the class the use of the fire extinguisher on a rubbish fire in the school yard. This was followed by taking the extinguisher apart and

explaining just how it worked and the chemical action that took place. Drawings were made to show the working parts of the Badger Upset Fire Extinguisher. In our science classes the action of the sulphuric acid, the soda, and the water were explained by demonstration.

A small fire occurred in the rear of a tenement block adjoining the school during our study. Two boys went to the fire engine house and asked about it. They reported to the class on the cause of the fire, how it was put out, and the damage done. It was caused by two small children playing with matches. This concrete example seemed to impress upon the class the seriousness of our problem.

Three weeks were spent on this piece of work. The most vital lesson these boys and girls learned from the work was a keen realization of the need of "carefulness" to prevent fires in their own homes, and a realization of the fact that each one has a vital and important part in "playing safe" in his community life.

VI, 6. A Study of the Organized Agencies in Springfield for the Promotion of Health and the Prevention of Disease

From Indian Orchard Elementary School, Grade VI A
Miss Ellen E. Morrissey, Principal; Miss Elizabeth Bossidy, Teacher

A. Situation

A weight survey was being held in the building. After the survey, each child was given a card with his health rating. Such discussions as the following took place:

How many have an A rating?

How many have a rating below A?

What should those children whose rating is below A do in the next few weeks? They should try to bring their rating up to A.

How can this be done? It can be done by drinking milk and by getting plenty of sleep.

Sometimes after doing all these things, our rating may still be below A. What is the best thing to do then? The best thing to do is to consult a doctor. How does our school help us to find out if there is anything wrong with our health? It furnishes a school doctor and a school nurse.

Who hires this school doctor and nurse? The city.

Does anybody know whether the city helps us in any other way to take care of our health? Several things, such as the work of the nurse and school dentist, were mentioned.

We call these groups of people that the city employs to help us take care of our health "health agencies."

The children were all interested and eager to learn something about these agencies.

B. Planning

After much discussion the following agencies were listed as those which help us to improve our health:

School nurses and physicians.
Visiting Nurse Association.
Clinics.
Hampden County Tuberculosis Association.
City Hospital.
Food Inspectors.
Board of Health Inspectors.
Collectors of Waste.
Building Inspectors; including
    Plumbing Inspectors,
    Electrical Inspectors,
    Inspectors of Elevators,
    Inspectors of Gas Piping.
Quarantine.
Vaccination.

Some means of getting information about these agencies must be found. It was decided to consult the library, where a copy of the Municipal Register was obtained. A booklet on the Community Chest was also obtained from the Community Relief Building. These two books gave all the information needed.

Groups of children were assigned to look up the material about the different agencies and to report to the class. Each child tried to remember the important facts reported by the others. These facts were put together into a paragraph. Each child then copied the paragraph into a notebook to keep for reference.

These reports were similar to the one following:

Medical inspection in Springfield is under the control of the Board of Health. The city has sixteen school physicians and nine school nurses. These nurses and physicians help us to take care of our eyes, ears, teeth, and our

general health. They visit our homes and protect us from contagious diseases. Last year they examined 37,149 pupils; 6,998 of these children were healthy. This left a total of 30,159 children who needed to be taken care of. They found that 2,199 children had contagious diseases. We are thankful to the city for paying these people to take care of us all the year.

A short outline was made which would help us in collecting material for the other agencies. It was as follows:

1. Duty of agency.
2. Work done.
3. Money spent on agency.
4. Effect on people.

While we were studying about clinics, a group of girls made a visit to a "Baby Clinic" at the health center in Indian Orchard. They brought back reports to the class of what they had seen and also many booklets which were helpful to us and to pupils of the VA class, which is studying hygiene in its relation to Safety.

The pupils obtained from the Metropolitan Insurance Company pictures and booklets which gave valuable information about health.

Photographs taken of the Open Air School on Howard Street were obtained. These helped the children to get information on the care given the children who need preventive work done for them.

During the progress of this work, it was decided to build up a poster on the blackboard to show these agencies and how they were controlled. The children brought in many pictures, and the best were chosen to represent the agencies.

A picture of a public health nurse was chosen to represent the Visiting Nurse Association. A picture of a crippled child represented the clinics, and similar pictures were chosen for the other agencies. They were pasted on the board in a straight line. Above them a picture of the Municipal Building was pasted. The office of the Board of Health was marked in this group, showing that these agencies were controlled by the Board of Health. As all these agencies work to promote the health of children, the class decided to place two pictures of healthy children at the bottom of the poster.

The amount of money that the city spends on these agencies was found to be interesting. The class decided to make a chart showing how the amounts spent on the agencies compared.

The work was correlated with arithmetic and the following are some of the problems made and solved:

1. If the city spends $66,525.74 a year for the collection of garbage and there are two collections each week for a year, about how much does one collection cost?

2. Of the 37,149 children examined, 6,998 were healthy. What part of the total number of children examined needed treatment?

3. In five years 6,770 children were examined at the dental clinic. What per cent of these children were examined in one year?

4. The city pays each of nine nurses $1500 a year and each of fourteen school physicians $600. How much does it pay for medical inspection in the schools for five years?

5. The total amount of money spent on the city hospital in one year is $43,867.96. Of this $15,344.43 is spent for professional care of the patients. $1,399.92 is spent for the salary of the matron. How much is spent on other things?

This work naturally led to comparison between the departments. After discussion, it was decided that the amounts of money expended

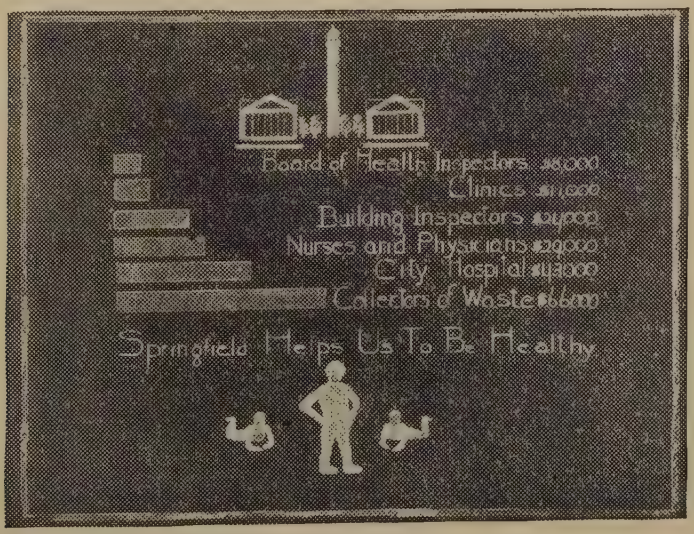


CHART MADE BY PUPILS SHOWING COST OF MAINTAINING SPRINGFIELD HEALTH DEPARTMENT

by each health agency could be represented on the poster by rectangles of varying lengths, allowing one inch in length to represent four thousand dollars. These lengths were worked out and placed on the poster in the proper relation, with the rectangle representing the largest amount at the bottom and that representing the smallest amount at the top. On a line with each rectangle was printed the name of the health agency and the exact amount expended. A picture of the Municipal Buildings was drawn at the top and pictures of children at the bottom of the poster. Just above the picture of the children was printed, "Springfield helps us to be healthy."

C. Results

Many important results were noticed from this work. The children received much practice in talking before the class, which was especially valuable to them, as many of them are of foreign parentage and speak foreign languages in their homes.

They improved in writing short paragraphs.

They gained independence in selecting from reference materials the facts that were most important to their topics.

Many new words were added to their vocabularies.

Aside from these results, the children learned valuable lessons in health and had it impressed upon them that the city spends a large sum of money for their welfare. They realized that care of the body is an important part of their education, and how this work is carried on is of great concern to the citizens of Springfield.

COMBINED ELEMENTARY GRADES

A Study of Safety in Traffic

From the Jefferson Avenue School, Mary E. O'Neill, Principal; Isla C. Hackwell, Maude E. Smith, Jessie F. Harris, Mae T. Fitzgerald, Mary E. O'Connell, Catherine M. Phillips, Lillian I. Fowler, Mildred L. Warren, Josephine I. MacCarthy, Grace E. Miller, Ora L. Batchelder, Alice E. Allen, Teachers

This unit of work covers the elementary field from the kindergarten through Grade VIB.

The hazards in this district are such as to stimulate principal and teachers to analyze the situation and develop methods to meet them. Jefferson Avenue School is situated at the corner of Jefferson Avenue and North Street. The latter is one of the main highways through the city. Almost all of the children in the school live either on North Street or on streets leading from it. In addition to this, it is necessary that the children of this school use Calhoun Park for a playground. To reach this park they must cross Jefferson Avenue and North Street. While this is done under the supervision of teachers, it can easily be seen that the complexity of the traffic problem is greatly increased.

It was felt that the school as a whole must cope with the conditions, that desultory and scattered efforts would not accomplish much. Each grade, of course, planned to work with objectives, methods, and materials suited to its interests and needs. The children entered wholeheartedly into the project, which was initiated and carried out in such a way as to allow much opportunity for the exercise of children's initiative, coöperation, and judgment.

In order to avoid duplication, full reports will be given only of the distinctive work in each grade.

Kindergarten

With the opening of kindergarten in September, numerous safety problems presented themselves. First, the matter of safety in the kindergarten itself. To bring this to the attention of the children, a sign was printed, which read, BE CAREFUL. The children were told what it said, and ways of "being careful" were then discussed. From safety in the kindergarten, the next step was safety on the way home. A song,

"Stop — Look — Listen
Before you cross the street."

was taught. This made an impression, and often the children would repeat the words, "Stop—Look—Listen" as they came to the cross walk. A new sign, WALK BETWEEN THE WHITE LINES, was made. Two white strips of paper were pasted at the side to distinguish it from the other one. One morning, a father of foreign birth, came into the kindergarten. He could understand and speak very little English. It was suggested as a means of interesting him in the kindergarten, that his child show him one of the signs, and tell him what it said. Later in the morning, the child was discovered printing the sign, first on paper, and then on the blackboard.

When the traffic officer was first stationed in front of the school, the reason for his being there was discussed, also his signals and what they meant. Confidence in his authority had to be created, when automobiles were held up, waiting for the children to pass.

The last point taken up was: how to be careful *all* the way home.

Grade IB

In the lower first grade the following suggestion was made by the teacher: "Would you like to draw some safety pictures?"

The class gave suggestions as to what they would like to draw. Children's suggestions:

"I should like to make a traffic officer."

"I can make the traffic officer in the little house down on the new bridge."

"I can make our school and the traffic officer helping us across the street."

The uniform of a traffic officer was discussed. The children suggested red and green lights for the traffic house on the bridge. They knew that red meant 'stop' and green, 'go.'

When pictures were drawn, the children showed them to the class and explained them.

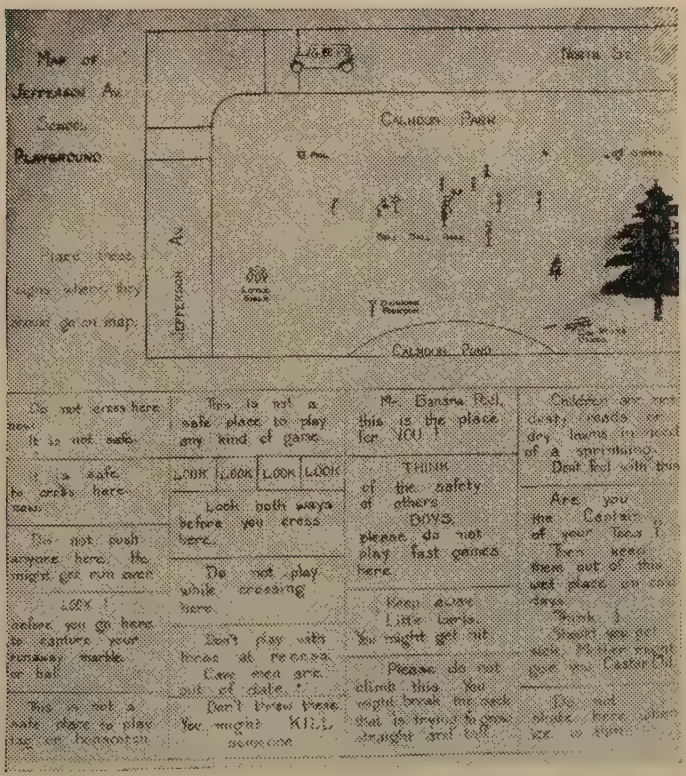
A safety bulletin was arranged on the board. Posters drawn by the children were put on the bulletin. Safety rules formulated by the children were printed and placed on the bulletin. Safety pictures cut from magazines were added. A child learned to print, "LOOK," and that was put on the bulletin.

The bulletin is to be continued as long as children show interest in it. The pictures and safety rules are changed at intervals.

Grade IA

Grade IA became interested in the making of safety pictures. The teacher suggested tableaux. The characters, poses, and explanatory stories were planned, executed, and criticised by the children. The stories had come from children's experiences. The group of pictures was named "Still Pictures," the individual pictures being as follows:

The Boy and the Banana Peel.
The Policeman and the Children.
The Child in the Hospital.
The Boy on Roller Skates.
The Child and the Kiddie Car.
The Boy and the Mother.



Map of Jefferson Avenue School Playground

The Child Who Hopped on a Truck.
The Boy and the Ball.
The Policeman and the Boy.

Grade IIA and IIB

The second grades made safety rules:

"Wait on the curb stone;" "Look both ways;"
"Cross between the white lines," etc.

This was correlated with reading, language, and penmanship by seat work of the following types:

1. Illustrative (directions read silently).
   Draw three children standing on the curb.
   Show policeman on the street.
   Make one black auto, waiting to cross.
   Show how the policeman's arms tell the children to go.
2. Filling in spaces (underlined words supplied by children).
   Keep on the *sidewalk.*
   Cross between the *lines.*
   Look *both* ways.
   Obey the traffic officer.
3. Making pictures.
   I am a big auto.
   I am coming fast.
   Wait on the sidewalk or I'll hit you.

The children took great delight in making plasticine figures and placing them in safe and unsafe situations on the diagram of our corner.

Grade II

The following dramatization was worked out in another second grade:

A SAFETY PLAY

(A group of children playing at Calhoun Park playground. One boy dashes into road after ball.)

Esther: Children, John has just run into the road after his ball. He knows he is not to do that. Our teacher has told us so.

Ira: Yes, we can't always see the danger. We have learned some of the places where danger is so we can avoid him.

Lillian: One place is in front of our school. We have white lines across the street to help us see him, but we don't always think of that.

Walter: Often little children run in front of automobiles. We know that danger is in every moving car.

Michel: I have seen children at the playground standing on the curbing and some one push them off into the road. A good chance for danger to catch them.

Bernice: Children who jay walk are very careless children. You wouldn't want to be called a careless child. I wouldn't either.

Helen: Our teacher tells us the important thing is to do the right thing at the right time.

Lily: I know one thing to do.

Esther: What is it?

Lily: Before crossing a street, look left—look right.

Annie: I know one.

Gladys: What is it?

Annie: Walk between the white lines.

Walter: I know one.

John: What is it?

Walter: Watch the traffic officer and obey his signals.

Florence: I have another one.

Charles: What is it?

Florence: Keep away from all moving cars.

Goldie: Obey the law. Do not be a jay walker.

Anna: I know one.

Robert: What is it?

Anna: Cross the street promptly when the signal is given.

Rhoda: I have another one.

William: What is it?

Rhoda: Learn the safety signals—"Look"—"Stop"—"Listen."

John: I have another one.

Edith: What is it?

John: Cross at the cross walk.

Fannie: I know one.

Helen: What is it?

Fannie: Avoid danger. Keep on the sidewalk.

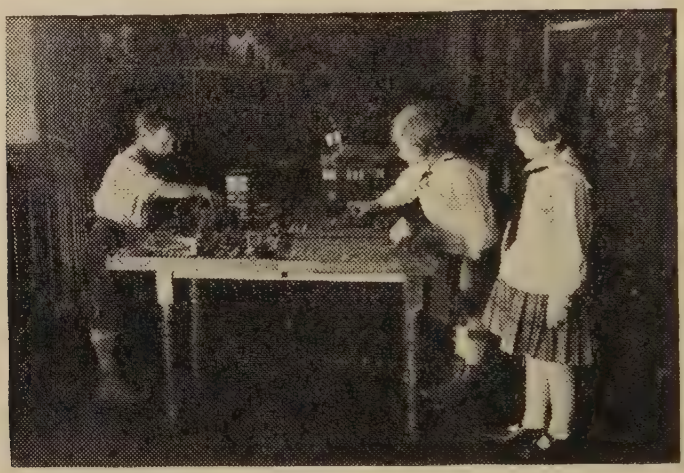
Michel: Now that we know the right things to do, let's form a safety club and be little friends of Safety First by obeying these safety rules.

Grade III

A sand tray was suggested, picturing the intersecting streets, the park, and the schoolhouse. The schoolhouse was made of heavy paper, covered with red paper on which bricks were drawn with

black crayon. Streets were represented by a very dark gray paper, the curbing of plasticine, and the sidewalks of red paper. The trees were evergreen slips dipped in green paint. The pond in the park was represented by a dish filled with water. The automobiles and the children were made of plasticine.

The stenographic report which follows was taken during the placing of the white lines at the cross streets.



A Sand Table Reproduction of the Jefferson Avenue School

Teacher, Miss O.

Miss O.: What street runs right in front of our school?

Mary: Jefferson Avenue runs right in front of our school.

Miss O.: What street runs across Jefferson Avenue right by our school?

James: North Street.

Miss O.: Does any little boy or girl here live on Jefferson Avenue?
(Several raised their hands.)

Miss O.: Does anyone live on North Street?
(Several other children raised their hands.)
(The children then told their home addresses.)

Miss O.: How many boys and girls cross the road coming to school?
Almost everyone!
Does anyone cross North Street and Jefferson Avenue?
(Many raised their hands.)

Miss O.: Have you ever met any danger on the way to school?

John: As soon as you step out into the street, you meet danger.

Alice: When I was going to school this morning, I looked both ways and a machine was coming. A machine almost hit me, and I ran across quick.

Edith: Once I went to get bread at the store. The bakery truck was right in back of me. It did not have any windows in back of it. I did not see the machine and the man who was driving did not see me, and I got hurt.

Charles: Danger is waiting out in the middle of the road for us.

Miss O.: What have we on our corner to help boys and girls cross the street in safety?

Billie: We have a traffic officer.

Miss O.: What have we when the traffic officer isn't there?

Jane: We have white lines.

Miss O.: Can anyone tell just how many white lines we have?

Richard: There are five sets of white lines near our school.

Miss O.: Could anyone point where the white lines near our school are?

(A pupil took a pointer and showed on the table just where the white lines were.)

(Previous to this, a committee of children had been appointed to go outside and investigate where the white lines were on the street, so they would know where to place them on the sand table.)

Miss O.: Could anyone show me the white lines that guide us across the street when we are going to the playground?

(These lines were pointed out by one of the pupils.)

Miss O.: Who can show us the white lines we use when we are going home? How many boys and girls would like to put the white lines on this table?

(The children were all anxious to do this. They cut strips of paper and placed them on the table to represent the white lines that are on the streets.)

Miss O.: Will the Committee who noticed where the white lines were see if these people are placing these lines in the right places?

(Some of the children said the lines were not in the right places. The teacher asked two or three pupils to go look out the window, see the real lines, then come back and tell the class.)

(The children noticed that the white lines in front of the North Street door were just as wide as the sidewalk.)

Miss O.: Now, let's look at the corner. Does it look safer than it was before?

Children: Yes.

Miss O.: What makes it safer?

Children: The white lines.

Miss O.: What else do you see?

Eva: The traffic officer.

Mary: The silent policeman.

James: The word "Look."

Anna: That word, "Look," means: Look first to the left, and then to the right before crossing.

Jean: That word, "Look," says to me: "Look first to the left and then to the right and see if there are any automobiles coming."

Roy: The white lines can save careful people and boys and girls.

William: The careful people must know the white lines.

Miss O.: What must they do every time they see the white lines?

Tom: They must walk between the white lines.

Miss O.: What else must people do when they see them?

Edith: They must look both ways before they cross the street.

Miss O.: Boys and girls, what else must we do? There are other things we must do besides watching the white lines.

Henry: We must watch the traffic officer.

(A group of children were selected to cut the word "Look" to place near each curb between the lines.)

In the early part of this teaching exercise there was evidence of an artificial situation and a somewhat stilted response on the part of the children, rather than answering in keys, etc. They reflected other exercises in safety teaching in such a way as to suggest a searching for the reply which the teacher desired, *e.g.*, "Danger is waiting out in the middle of the road for us."

As the lesson progressed, the children became natural and thoughtful. They checked the judgments of other children and verified their own judgments.

Grade IV

Six children were taken to a busy corner in the city to watch a traffic man at work. Written reports were made of this trip. These children also gave talks in the different rooms of the building about their observations. They were called the Traffic Squad.

The traffic man directing traffic at a busy corner was dramatized, and a sand tray illustrating it was made.

Many interesting and profitable language lessons resulted from the trip.

The following are the safety talks worked out by the traffic squad:

1.

"We are the Safety Squad. One day Miss Harris took us in her automobile to watch a busy policeman. We are going to tell you what we saw."

2.

"My school is on a very dangerous corner. We are planning many things to help the children learn about safety. One of these plans was a visit to a busy corner to watch the traffic man. He is always looking out for automobiles, cars, and people. When he wants them to go or to stop, he blows a whistle. He also uses his hands to direct them. A traffic man wants to help everyone. Little children should help him by watching and obeying his signals."

3.

"On the way to State and Main Streets, we went down Columbus Avenue, passing the new bridge. I saw a policeman there. He was standing in a one-room house, built in the middle of the street. He pressed a button. A red light said, "Stop." I think red means danger. Then he pressed another button, and a green light said, "Go." I think green is a safe color. After we got by, I turned around. In green and orange letters it said: "Go, left." I think orange is a safe color, too. We drove on the right side of the road. You know we should walk on the right side of the walk.

We next turned to the right of a still policeman. All of you children ought to know what that is, for there is one on the corner of Jefferson and North Street. He wears a red lantern for his cap. Sometimes his cap is knocked off by reckless drivers."

4.

"At the corner of State and Main Streets there was a traffic officer directing traffic going north and south, east and west. Traffic going north and south stopped while traffic east and west passed. He had a whistle which he blew to get the drivers' attention. He held it in his mouth, so he had both hands free."

5.

"While the traffic officer was at work, we saw people jay-walking. One man was not only jay-walking, but was reading a paper, too, in the middle of the street. A boy did something dangerous. He was sitting on the fender of an automobile and twice he jumped off. The second time he landed in front of a trolley, but succeeded in running away quick enough so he was not hurt. The traffic officer was there to help these people, but they paid no attention.

"We also saw many careful people. They kept their eyes on the traffic man. They did not step off the curbing until he gave them the signal. I think they were walking in the path of Safety."

Grade V

The VB children worked necessary safety rules into chalk talks. These talks were illustrated by blackboard drawings, made as simple and vivid as possible. The child drew as he talked. The doing of this was intensely enjoyed by the children. Some of them talked before the kindergarten children. The next morning the kindergarten teacher reported that an epidemic of safety drawings had broken out in the room. The children were not only making copies of those they had seen, but also drawing original ones.

Chalk Talk 1

Riding on the handle bars.

Keep safe on your way home. Never ride on the handle bars of another boy's bicycle. He cannot see to steer and you may leave the wheel faster than you got on. Concrete is not an easy bed to fall upon.

Chalk Talk 2

The ball in the road.

Sometimes when we are playing soccer, or baseball, our ball goes into the road. Of course, we want it right away. But wait! Danger is near. Here comes an auto. Do not run into the street or let anybody else do it. Go get your teacher and she will see that you are safe while getting the ball.

Chalk Talk 3

Jefferson Avenue School is at the corner of Jefferson Avenue and North Street. These are two busy streets. When we play, we must go to Calhoun Park. We cross two streets. Our children must be especially careful.

Chalk Talk 4

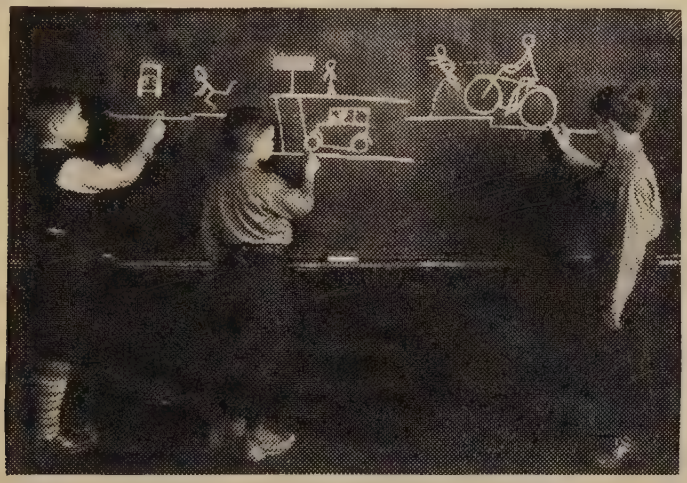
When walking across the street to the park keep in a straight line and look ahead. The one who plays or looks around makes a gap. Along comes an auto and starts to go through. Just then, the boy sees he is behind and runs ahead. Of course, the auto is bigger than he and something will happen. It may be this.

Chalk Talk 5

North Street is a very busy street. Stand on the sidewalk and watch. An auto passes every few seconds. Some go straight. Some come swiftly around corners. You can see it is no place to play. Cross North Street in front of the schoolhouse, where you are protected. Don't cross it again before you get home.

Chalk Talk 6

We have a policeman in front of our school to see us safely across the street. Watch for his signals. Walk between the white lines. No policeman can keep you safe unless you do your part.



Fifth-Grade Boys Giving Chalk Talks to Pupils of Other Grades

The fifth-grade boys play with a large ball at recess—a favorite game. One day in early September, the ball, thrown with force, went beyond the playground into the road. The boys ran to the edge of the playground and waited while the pitcher rushed to his teacher for permission to get the ball. (A ruling of last year—no boy to follow the ball into the road.)

After recess, this incident was discussed in the Oral English period, the teacher remarking that the rules taught in the fourth grade had been 'carried over.' As this was our objective, there was great rejoicing.

The children related several incidents where younger children were injured or killed by darting suddenly into the street.

It was suggested that one or two newspaper clippings of such accidents be read each day in the Oral English period. A real audience situation was created. The pupils were to read, as widely as possible, articles in the newspapers in order to select suitable material for children. They were to read the article several times to

members of their families, so as to make a good impression on the class. The class discussed the accidents and placed the blame.

As outcomes of this work, skill is being acquired in selection of material, in oral reading, in articulation, and in interpretation. The pupils are also acquiring an attitude towards safety in play.

The safety rules were reviewed. Some new ones were added to these. One rule was made to fit the playground situation.

In oral language one-minute speeches were prepared by the children. Twelve of the children having the most interesting talks were chosen to go to the third, fourth, fifth, and sixth grades and give their minute speeches. This group called itself the "Safety Troupe."

Grade VI

Attention was first called to the need for safety drives. A Safety Council has been established in Springfield, whose work is "Safety Always."

We next discussed the work of this Safety Council, paying most attention to the bulletins which this council has had placed upon several busy corners about the city.

Thirteen children had never seen them, so a trip was planned and taken to the nearest bulletin. This was at the Plainfield Street Dry Bridge. To understand why that particular spot was selected for the bulletin, a count was taken of the number of machines passing that point. We found that 22 automobiles and one trolley passed in one minute. Later, we used this information in making safety problems.

Letters were written to the Springfield Safety Council of the Chamber of Commerce, asking for copies of these bulletins. When they arrived, they made a safety bulletin in our room.

Posters appearing in street cars, issued by the Chicago Safety Council, were brought in by a pupil whose father works for the company. These posters also went on our safety bulletin.

Pretending we were members of a safety council, short talks were planned, written, and given. These talks were planned from the posters on our safety bulletin or on some particular phase of the problem which interested the pupil. The boy who had been run over wrote on the dangers of jay-walking.

Samples of the Safety Talks Worked Out by the Children

"Prevent accidents before they happen. Look first to the left, then look to the right before crossing the street. Your safety is really up to you."

"Jay-walking is dangerous. Cross the street between the white lines."

"Safety bulletins will play a large part in the safety campaign in this city. Watch for them."

Words whose spelling we had to learn in writing our poster talks formed the spelling lesson for the week.

Safety sentences and paragraphs were copied in penmanship.

Problems on safety were made up for arithmetic.

Problems Made by Children in Arithmetic Class

1. If 22 automobiles pass Plainfield Street in 1 minute, how many pass in a day?

2. How many children were injured in one month in Massachusetts, if 5,548 were injured in a year?

3. A traffic officer's pay is about $40.00 a week. How much does it cost Springfield to protect a busy corner for a year?

Samples of Children's Composition on Safety

The Safety Bulletins

The safety bulletins that are being put up lately are very interesting. They are also very useful. Grown-ups as well as children ought to do what these bulletins say. Sometimes they say "For Safety Sake Slow Down at Schools," and other times they say "Let Your Children Play in Safety." Motorists riding by ought to notice these signs. These signs are often found at corners where traffic is bad and autos and trolley cars keep running back and forth. Just think of all the children that were killed and injured because of carelessness. Let us try this year to have fewer accidents than last year. So remember, boys and girls, before crossing the street look first to the left and then to the right. Then you will know you are safe.

Carelessness Brings Sadness

It was Saturday morning, and mother thought it would be a good time for Jack and Grace to take a bath. Instead of doing what mother told them to, they skipped downstairs and out the door without mother seeing or hearing them. It had been raining the night before, and in front of the house in the road was a big mud puddle. The children thought they would like to paddle. They took off their shoes and stockings and ran out in the street. Just then a car came along. The driver did not see them, and hit the two dear children. They were taken to the hospital. Now the little boy has only one leg, and the little girl has but one arm. If you do not go in the road, you will never be like those two children.

The Safety Posters

When we were coming home from the library, we saw a man putting a poster on a large board. We asked him if he had any posters, and he said he did not. He also said that we should not run out into the street when automobiles were coming. While he was talking, a little girl that happened to see her mother on the other side of the street, ran in front of two automobiles and on to the sidewalk. Then there was a crash. The two automobiles had crashed together. The fender and lights were broken on one car, and the wheel came off the other. Children, you must never run out into the road or you may have to walk on a crutch for the rest of your life.

Our Safety Bulletins

Drivers must always mind what the safety bulletins say. If they will not do what it says, they will get into trouble. Some little girls and boys are careless and run into the road and get hurt. Some may get broken arms and legs just for being careless. If we are careful when we cross the street, and look both ways, we will not be in the hospital. The only thing that we want you to do is to be careful how you cross the street, and not to be a jay-walker.

Lieutenant Maloney, in charge of all city traffic, spoke to the children on safety. Many of his suggestions and examples were used by the children in their talks.

General Results

From newspaper reports which were volunteered by the children, and items involving safety, greater keenness in observing the practices of "Safety First" by others was apparent.

The beginning of thoughtfulness along safety lines is being impressed upon the children.

The children are beginning to realize the underlying reasons for certain required behavior.

A desire to observe these rules and to help others is very evident throughout the building.

AUXILIARY CLASS

Safety in Travel

From Worthington Street School
Miss Bertha Richardson, Principal; Mrs. Agnes Gibb, Teacher

The following is a unit of activities developed by a class of children whose chronological ages range from eight to fourteen years, and whose retardation ranges from three to four years.

A. Aims

1. To help children realize the dangers in streets and highways.
2. To establish safety habits when traveling.
3. To provide definitely for teaching specific subject matter in English, geography, industrial arts, and arithmetic.

B. Center of Interest

Safety in primitive life compared with safety in modern life.

C. Subject Matter

1. Home life of first white men.
2. Home life of present-day people.

D. Activities

1. Sand Table Representation.—The sand table representation showed the homes of early cave dwellers and tree dwellers and contrasted to them a modern city, showing street cars, tracks, railroads, automobiles, and airplanes.

   A story of the sand table was developed on the blackboard as a language exercise. It represented the work of the group. Each child was assigned a section of the story for a short talk. This he gave as his contribution in a discussion of safety in travel, preceding the production of the play.

E. A Dramatic Play

Note: A play, entitled "A Lesson in Safety," was prepared and presented. This brief three-act play, details of which are omitted here for want of space, mainly concerned a boy who had committed various indiscretions which had endangered his life, and who was warned and deterred from further indiscretions of like sort by a bad dream in which he suffered some of the consequences which he had narrowly avoided in his waking life.—*Editor.*

Checking the Results of Instruction in Safety

From the East Springfield School

Miss Margaret J. Davison, Principal; Misses Margaret T. Griffin, Eileen M. Powers, Sarah L. Wheaton, M. Louise Stoughton, Teachers

In presenting the following record of an attempt to check results of safety education, we are entirely aware of the fact that it is too early to measure these results with any degree of reliability. This, however, is only a suggestion of a possible way of following up the results of this work. Should these results warrant, we shall want to extend this method, together with a record keeping of accidents, to other sections of the city.

The following outline of procedure was followed in an attempt to check the results of Safety Education in the East Springfield School. This is an organization of five classes, including Grades I to VI, in a rapidly growing section of the city. These classes are housed in a portable building. A new building is under construction.

1. A typewritten letter was sent to each family represented in the school, inviting the mothers to meet with the teachers and principal on Friday afternoon. Following is a copy of the letter sent to each home:

September 24, 1925.

Dear Mrs. ————

Realizing that Safety Education is one of the most important aims of our present school program, we are anxious to learn to what extent our teaching in this direction has been successful in carrying over to the home.

For this purpose, you are cordially invited to meet with the teachers and principal on Friday afternoon, September 25, 1925, at 3:30 p.m., Room 4, East Springfield School.

I hope you will make a special effort to be present.

Very sincerely,
(Signed) Margaret J. Davison.
Principal.

2. At this meeting, a short talk was given by the principal emphasizing the importance of safety education and the reasons for wishing to check results. Questionnaire No. 1 was distributed and discussed informally with the mothers. They were requested to fill it out and return it to the school the following week.

3. Questionnaires were sent home by the children to all mothers not represented at the meeting. These were also filled out and returned during the next week.

4. It was explained to the parents at the meeting on September 25 that a second questionnaire had been prepared, and that we should like their coöperation in filling this out at a later date.

Questionnaire No. 2 was sent to each home by the children on Friday, October 2, 1925, and returned to the school the following week.

5. In checking results, questionnaires returned by families who were new to the district were disregarded.

In most cases, the questions were answered by "yes" or "no." Parents were requested to answer only those questions which applied to their children. The tabulation of comments and illustrations is given separately.

Total number of questionnaires checked: 60.

SAFETY EDUCATION

Questionnaire No. 1

[Note: The questionnaire is in six parts, indicated by Roman numerals.]

A SAFE VACATION MEANS A HAPPY VACATION

I. *Play*

A. *Questions*

1. Did your children show the results of safety education by choosing safe places to play? For example: parks, playgrounds, or own yards.
2. Did you observe any actions or hear any comments by children of school age playing with children of non-school age in regard to safety education in play? If so, illustrate.
3. Did your children try to keep their carts, tricycles, scooters, or coasters out of the streets when playing with them?
4. If it was necessary for your children to cross Page Boulevard either while playing or doing errands, did they observe safety rules while crossing?
   [Note: Page Boulevard is the busiest street in this section and has a double line of trolley tracks on it.]
5. Did your children have any accidents during the summer vacation resulting from carelessness in play or from playing in unsuitable places? If so, state briefly, giving cause and nature of the accident.

B. *Tabulation of Answers*

1.	Yes: 53	No: 3
2.	Yes: 9	No: 37
3.	Yes: 48	No: 2
4.	Yes: 49	No: 1
5.	Yes: 4	No: 54

C. *Comments of Parents*

A-1. "As far as possible, we see to it that our little girl and her playmates play in safe places."

"Most of the time."

"I didn't notice especially."

A-2. "Yes, I have heard my boys tell the little children who live next door, not to play in the road."

"I have seen some of the school children keeping younger children out of the road."

"The older children kept the younger ones out of the street."

"Don't be a jay-walker."

"By telling baby to keep out of the road."

"John is very careful about taking care of his little brother when on the trolley car, to see that Teddy keeps his head inside the car window."

"When playing on the sidewalk with his cart, Ted would keep his baby brother from going into the street by telling him, 'No, no, auto coming.' "

"In caring for younger children, the older ones observe safety rules."

A-3. "To the best of our knowledge."

"I always tell them to."

A-4. "As far as I know."

"I always warn my children before sending them on an errand."

A-5. "A boy fell off the roof of a new house—also fell from the second story of his own house."

"A boy fell off the barnyard fence and scarred his face."

"A boy fell from a tree while climbing it."

"John stepped on nails four times while playing in a new house. Once he was barefoot, the other times he had on sneakers."

II. *Bicycles*

A. *Questions*

1. Did your children ride their bicycles in the road during the summer vacation?
2. Did they, as far as you know, keep to the right of the road?
3. a. Did you see any children riding bicycles and carrying someone on the handlebars?
   b. If so, were they children who attend the East Springfield School?
4. Were there any children injured during the summer vacation because of carelessness in bicycle riding? If so, how? Did the child or children attend the East Springfield School?

B. *Tabulation of Answers*

1.	Yes: 8	No: 18
2.	Yes: 7	No: 1
3a.	Yes: 10	No: 26
3b.	Yes: 3	No: 1
4.	Yes: 1	No: 24

C. *Comments of Parents*

A-3. "Did not know where they went to school."
"Not recently."
"I saw a small boy knocked from his bicycle on Edendale Street, by an automobile, but he was not injured. He rode from behind one car into the path of another. The boy attends this school."
"Yes, but not our school boys."

A-4. "John was injured because of riding on the handlebars of bicycle, so that he required a doctor."

III. *Roller Skating*

A. *Questions*

1. Did your children stay on the sidewalk while roller skating?
2. Did you observe any actions or hear any comments that would lead you to think that they were respecting the rights of pedestrians?
3. Were there any accidents that you know of, during the summer vacation, caused by carelessness in roller skating?

B. *Tabulation of Answers*

1.	Yes: 34	No: 2
2.	Yes: 13	No: 18
3.	Yes: 1	No: 41

C. *Comments of Parents*

No comments.

IV. *Swimming and Playing in the Water*

A. *Questions*

1. Check the following rules which you consider your children observed:
   a. Never go in swimming alone.
   b. Don't swim or play in the water when overheated or tired.
   c. Don't swim after a hearty meal. Wait at least an hour.
2. Do you know of any accidents or illness among the East Springfield School children resulting from carelessness in swimming or playing in the water? If so, state briefly the nature and cause of such accident or illness.

B. *Tabulation of Answers*

Number of times checked

1: 41
2: 34
3: 37

Accidents or illness reported

Yes: 1 No: 37

C. *Comments of Parents*

"Eleanor was swimming at Lake Lorraine, and there are places where the sandy bottom is not safe. She felt herself going down and called for help in time to be saved. In going out to her, I noticed the sand slide from under me."

V. *Vacation Out of Town*

A. *Questions*

1. If your children went out of town for part or all of the summer vacation, please check the following rules you think they observed:
   a. Look before crossing the street.
   b. Cross on the crosswalks whenever possible.
   c. Obey the signals of the traffic officer.
   d. Get on and off the street car correctly.
   e. Be careful when getting on and off a train.
2. Report briefly any accidents or illness which occurred to your children while out of town.

B. *Tabulation of Answers*

Number of times checked

1: 33
2: 30
3: 27
4: 20
5: 17

Accidents or illness while out of town

Yes: 0 No: 11

C. *Comments of Parents*

No comments.

VI. *Fourth of July*

A. *Questions*

1. Did your children observe a "safe and sane" Fourth of July?
2. Can you give any personal experiences to show that the children were endeavoring to follow instruction given in accident prevention?
3. Report briefly any accidents caused by carelessness in the observance of Fourth of July.

B. *Tabulation of Answers*

1. Yes: 54 No: 1
2. Yes: 3 No: 21
3. 15 report, "Do not know of any."
   5 report accidents (see below).

C. *Comments of Parents*

A-1. "Our children are never allowed to handle explosives of any kind."

"We made it our business to see to it that our children did not get any fireworks."

"My children are not allowed to use any fireworks."

A-2. "I noticed that care was taken in waiting a proper length of time before picking up an unexploded fire cracker."

"I observed my children watching other children under school age, to see that they didn't get hurt."

A-3. "A boy we know was injured while trying to load a small toy cannon with some explosive he had made in the high school. It exploded before he expected it to, and he lost two of his fingers."

"I saw a boy run against another person with a sparkler that was still hot."

"A firecracker almost caused a boy to lose his eyesight. When the firecracker didn't go off immediately, he ran carelessly up to it. He looked at it closely and just then it exploded in his face, causing a badly burned eye."

"One of our boys had his thumb burned by fire caused through opening a roll of caps for his pistol. The caps were stuck together and when torn apart ignited from the friction caused."

Additional Comments on Questionnaire No. 1

One mother wrote the following: "I felt that Russell could take care of himself so well that I let him go downtown alone for the first time, during the past vacation."

A father wrote: "We appreciate the safety education part of the school program. We believe it has accomplished all that could reasonably be expected from it and will be glad to coöperate in any way possible."

Another father gave the following suggestion: "Regarding Page Boulevard being a busy street: I would suggest that you have the road marked for the children to cross in one place only. This may prevent any possible accidents, and if the children were taught to obey a school rule of crossing over at one marked part of the road, it would prevent children from straggling across all over the road. They now cross at Duryea Street, Santa Barbara Street, Fresno Street, and Monrovia Street."

[Note: Up to the present time, East Springfield has no crosswalks painted on any of its streets.]

SAFETY EDUCATION

Questionnaire No. 2

[Note: Questionnaire No. 2 is in four parts, indicated by Roman numerals.]

1. *Safety in Going to and from School*

A. *Questions*

1. Do your children exercise caution when crossing the street?
2. Do they cross at the crosswalk whenever it is possible?

3. Do your children come directly home after school?
4. Have your children ever suffered any accident or injury in going to and from school? If so, explain briefly.

B. *Tabulation of Answers*

1.	Yes: 53	No: 2
2.	Yes: 53	No: 1
3.	Yes: 55	No: 1
4.	Yes: 0	No: 57

C. *Comments of Parents*

A-1. "Not always."
"As far as we know."
"They are warned to do so."
"I hope so."
"As far as I know, they do. I have always cautioned them never to cross, only when the way is clear."

A-2. "Not always."
"Yes, on busy streets."
"They cross at the end of our street."

A-3. "Sometimes."
"Usually."
"Yes, he knows he will have to stay in all the afternoon, if he does not come directly home after school."

A-4. No comments.

II. *Safety in Play Outside School Hours*

A. *Questions*

1. Do your children keep out of the street when playing ball, marbles, etc.?
2. Have they ever been injured because of running into the street after balls, hats, etc., which have fallen or blown into the street? If so, explain briefly.
3. As far as you know, do your children avoid running after and hopping on to moving trucks and vehicles?
4. Do your children "beg for rides?"
5. a. Have you seen any of the East Springfield School children running after and hopping on to moving trucks and vehicles since September 9, 1925?
   b. If so, give the number of different children as nearly as you can.
6. When your children play in the house, do they exercise care in handling toys, scissors, pins, needles, victrola needles, etc.?
7. Can you report any accidents due to carelessness while playing in the house?

B. *Tabulation of Answers*

1.	Yes: 44	No: 3
2.	Yes: 0	No: 60
3.	Yes: 44	No: 12
4.	Yes: 1	No: 53
5.	Yes:	
	a. 3	
	b. Several	No: 49
6.	Yes: 53	No: 2
7.	Yes: 1	No: 53

C. *Comments of Parents*

A-1. "As far as we know."
"Not always."
"Sometimes, yes; sometimes, no."
"Not always unless warned."
"When playing ball, they always play in the street, but there are very few cars going by and that makes a difference."
"Yes, for my girl in the fourth grade; no, for my boy in the second grade."
"They do when playing around home."

A-2. No comments.

A-3. "Charles has done so several times."
"I have never known of one of my children doing such a thing."
"As far as I know."
One mother wrote: "That is somehing I should like to know myself."

A-4. "I have caught them begging for rides and have censured them and have also related risks to them."
"Not that I know of." (This response was given five times.)
"I don't think so. My boys are home boys. They are always around home except when they go to scout meetings or to take music lessons."

A-5. No comments.

A-6. "Sometimes."
"Not always."
"They are very careful."
"She does not play with those things."

A-7. "Yes, my little boy was burned while playing with matches."

III. *Safety on the Street Car and in the Shopping District of the City*

A. *Questions*

1. Do your children wait until the car stops when getting on and off the street car?
2. Do they look both ways before crossing to the sidewalk?

3. Do they watch the traffic officer's signals?
4. Do your children always cross on the crosswalks when in the shopping district?

B. *Tabulation of Answers*

1.	Yes: 45	No: 0
2.	Yes: 44	No: 0
3.	Yes: 40	No: 1
4.	Yes: 46	No: 0

C. *Comments of Parents*

A-1. "I hope so, but I do not know when I am not with them."
"They do not travel alone yet."
"They never go on a car alone."
"They do not go downtown often enough to know about these."
"My children are very careful when I am with them. I hope they are always so."

A-2. "As far as I know."
"They are being taught to."
"I hope so."
"He waits to take hold of my hand."

A-3. "As far as I know."
"He has not been on such streets alone."
"That is one of his ambitions, to be a traffic officer."

A-4. "I think they do."
"I believe so."

A-5. "They are never there alone, but they are being instructed always to cross on the crosswalks."
"My children always go with their parents by auto."
"My children are never in the shopping districts alone."

IV. *If Your Children were in an Accident or were Lost, Would They be Able to Give the Following:*

A. *Questions*

1. Full name.
2. Father's name; mother's name.
3. Street and number.
4. Where father works.
5. Name of school attending.

B. *Tabulation of Answers*

1.	Yes: 58	No: 0
2.	Yes: 56	No: 0
3.	Yes: 56	No: 0
4.	Yes: 54	No: 0
5.	Yes: 56	No: 0

CHAPTER VII

COURSES OF STUDY AND METHODS IN SAFETY EDUCATION: JUNIOR HIGH SCHOOLS

IDABELLE STEVENSON
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The materials and the methods for teaching safety in the junior high school are in general similar to those described so fully in the preceding chapter dealing with the elementary grades, save that naturally the content may be of a more advanced type and that greater emphasis may be placed on the development of civic consciousness and responsibility.

The exposition in the present chapter is therefore confined to the presentation of a limited amount of suggestive material showing how safety education has been incorporated in junior-high-school work in two schools, one in Mount Vernon, N. Y., and the other in Manhattan.

SAFETY EDUCATION IN A MOUNT VERNON JUNIOR HIGH SCHOOL

The material first presented is drawn from the Sophie J. Mee School of Mount Vernon, of which Jasper T. Palmer is principal.

1. Safety and History

The best way to incorporate safety with history is to emphasize events relating to safety as the history course is followed. There are many events in United States history which show not only the *necessity* for safety, but the *interest* which many have shown in the subject as well. There are examples of calamities caused by carelessness, and there are instances of great saving of human life and property because of the intensive, careful labor of inventors and scientists. The Chicago fire, and the cleaning up of the Panama Canal Zone served for illustrations of these. Events which were emphasized in the history course are listed below:

Inventions making for safety: Astrolabe, compass, lightning-rod, telegraph, telephone, wireless.

Discoveries and progress made by science: Isolation of the yellow fever germ, clean-up of the Canal Zone, discovery of ether, abolition of grade crossings.

Labor questions: Emphasis was placed on devices used in factories, mines, and other places for the safety of workmen and on the part labor has played in obtaining such protection.

Biographies: Much safety teaching centered about the life of Franklin, who did so much for the public good. Clara Barton's work with the Red Cross was also studied.

It is well to have at least one lesson in the term on the subject of safety only, in order to draw together and emphasize what the pupils have already gotten in a general way from the daily lessons.

2. Safety and Geography

In studying *manufacturing* the dangers of different occupations were noted, as well as the improved methods and safety devices. In the study of *transportation* the sanitary and safe handling and transportation of foods was noted. Safety on the highways, safety devices on cars, subways, tunnels, and in hotels were also subjects of interest. In studying *mining* the old dangers of the work and the improved safe methods of mining were contrasted. The same plan was followed in studying *lumbering.* Safety was also emphasized in the study of Asia. Maps were made of those regions that are unhealthy because of climate, and regions that are unsafe for travel because of bandits, unfriendly people, wild animals, and steep mountainous regions.

3. Safety and Civics

"The eighth-grade civics classes made a study of how Mount Vernon makes her citizens safe in health. The pupils were assigned topics such as:

"1. If there is a board of health in your city, of how many members does it consist? How is it chosen? What are its duties?

"2. What officers are employed by the city for the protection of health? Report on their various duties.

"3. Report on the street cleaning department, what it does, what it costs, etc."

Similar questions were asked about the sewage system, garbage disposal, water supply, means of keeping atmosphere pure, pure food laws, parks, and playgrounds, school medical inspection, and the ordinances in Mount Vernon for the protection of health.

One topic was given to two or three pupils to work on together. They went to the different departments in the City Hall and to the Library for their information. After each group had finished collecting the data, one pupil gave a recitation on the subject.

These recitations were typewritten and used for our scrapbook, along with snapshots and other material collected by the classes.

During Safety Week in Mount Vernon, daily newspapers published each day one of these topics.

Another class made a similar study of the Mount Vernon Fire and Police departments, Mount Vernon traffic rules, home hazards, and vacation hazards. In preparing this work students visited the fire and police department and interviewed many policemen and firemen whom they knew.

4. Safety and Arithmetic

Materials and statistics giving number of deaths and injuries in Westchester County during recent years, similar figures from the New Haven Railroad, and figures from the Public School Bulletin on Health Inspection of School Children were used in percentage problems and in making bar graphs.

5. Safety and English

Safety topics were found to lend themselves to both written and oral English. Developing one phase of safety in a class proved most interesting. The topics used were Origin of Fire, Early Fire Fighting Methods, The Bucket Brigade, Fire in Frontier Life, Forest Fires and Methods of Fighting Them, Elaborate Fire Systems of To-day.

Safety Education in a Manhattan Junior High School

In many junior high schools the work has centered about club activities or organization for school government. Public School No. 30, of Manhattan, New York City, of which Mr. Albert Loewinthan is principal, has worked out a plan for safety commissions

and a school safety court in connection with the school city government. It offers an opportunity for the children to function in the management of the social problems of the school. The following quotation from an article by Miss Catherine Nathan describes the way in which the commissioners and court work.

"A safety court was installed, and safety commissioners appointed from each class to attend the court meetings. The teachers of the 8B grades are asked to suggest boys who they think would be fitted for the office of judge. About five boys are selected and presented to the safety court. Each candidate makes a speech, stating why he thinks he is fitted for the office, and the safety commissioners then make their selection. The court consists of this judge, clerk and district attorney, all of whom are elected by the safety commissioners. The procedure of the court is as follows:

"Case slips for hitching, jay walking, etc., are handed on Wednesdays by the commissioners to captains in the yard. The lieutenant brings these slips to the teacher in charge of the court, who assorts them and gives them to the clerk. The following day the clerk, having made out subpoenas for these cases, distribute these subpoenas to the classrooms of the offenders. The court meets in a classroom once a week. The session is open to any pupil in the school who wishes to attend. The clerk calls the roll. The cases are called according to the calendar. Witnesses are called and decisions are rendered by the judge. The punishments consist of assignments to write poetry on safety, write safety plays, make safety posters, make up arithmetic examples on safety subjects, write compositions, make speeches in the yard on safety, write a note home to the parents swearing not to repeat the offense again, etc. Boys who do not report are followed up by the judge and the clerk and given double punishments. The cases handled by the court consist of persistent jay walkers, hitchers, fighters, and about twenty cases are handled at each session. With an efficient safety force, cases decrease toward the middle and end of the term. Most of the cases at the end are those of boys new to the schools for hitching on open cars, busses, and trucks. The safety commissioners are stationed two blocks away in each direction before school and at dismissals to watch for safety offenders, and every child in every class has the authority to report any case of hitching, or other safety offence, to his safety commissioner, who will proceed with it in the proper fashion. When the court first opened, in March, 1924, about 140 cases were handled. The number has now decreased to about 18 at each session in November 1925.

"In addition to the work of the safety court each year the school has had a safety exhibit for which each boy from 2A to 8B has had to bring an original project on safety, which might be a poem, composition, play, construction, poster, drawing, game, or any safety idea. When the bulletin board on the outside of the school is not otherwise occupied, there is always a safety poster to call the children's attention to the fact that they are not to jay walk, and not to hitch. In the upper grades of the junior high school the subject of safety is used in the oral English for a topic at least once a week."

CHAPTER VIII

COURSES OF STUDY AND METHODS IN SAFETY EDUCATION: SENIOR HIGH SCHOOLS[1]

IDABELLE STEVENSON
Supervising Field Secretary, Education Division, National Safety Council, New York City

In writing of safety teaching in the senior high school, Thomas W. Gosling, Superintendent of Schools, Madison, Wisconsin, says: "The senior high school, while continuing to form habits and to teach the beauty of service, will meet the needs of older students by encouraging investigations and the application of these findings to more purposeful living."

A most perfect example of this statement is to be found in the senior high school of West Springfield, Massachusetts. In the spring of 1924, John R. Fausey, Superintendent of Schools, asked the coöperation of the senior English class of the high school in the town's safety campaign.

The class met and, under the direction of Miss Elizabeth L. Neal, their teacher, decided to concentrate upon publicity work for the safety of the children of West Springfield. The work immediately became a coöperative project. A list of agencies interested in accident prevention and safety was furnished by Mr. Fausey. A form letter, the result of the combined efforts of the class, was prepared and sent to these agencies, asking for suitable material. Many booklets, posters, and actual courses of study were received.

The poster material was sent to the head of the art department, who has since used many of the designs and slogans in her work with the lower grades.

The literature was distributed to members of the class for study, and reports were made in the recitation periods. The plan books, *Safety Education,* published by the Chicago Board of Education, and *Safety Instruction for the Kansas City Elementary School,* published by the Kansas City Safety Council, were found particularly useful. The class then decided to send to the grades a weekly bulle-

[1] The material for this contribution has been largely supplied by Supt. John R. Fausey, West Springfield, Massachusetts.

tin on safety. Two students were appointed by the class president each week to prepare these bulletins, which were read in class for correction and approval. The corrected papers were sent to the printing department of the school, where they were mimeographed and distributed. The first letter, as you will see, was general.

West Springfield High School,
April 8, 1924.

To the Boys and Girls of the West Springfield Schools:

Our Superintendent, Mr. John R. Fausey, has asked our English Class 12 C, to help out in the Safety Campaign. Our class has decided to send weekly bulletins to all the schools, offering suggestions which we hope will be helpful.

To-day we are sending you the following slogans:

"Make Safety First your middle name."

"He who learns to look each way,
Will live to look another day."

"Chance travels on crutches."

"Jack, be nimble; Jack, be quick,
But don't run round with a pointed stick."

"Goosey, goosey, gander, why do you wander,
Off the curb, off the curb, always into danger?"

Perhaps you can think of some other motto or jingle and you might make pictures to illustrate them.

This week we also are sending you ten safety rules for children, printed on cards and kindly given us by the Automobile Association of Springfield. If you obey these rules, you will be safer.

Before long some of our boys and girls are going to make you a little visit and talk to you personally.

Good-bye until next week.

Yours for a long and safe life,
English Class 12 C.

A second letter dealing with certain specific hazards was prepared the week following, and later, letters on street, fire, and home hazards were distributed.

West Springfield High School,
West Springfield, Mass.
April 15, 1924.

To the Boys and Girls of the West Springfield Schools:

Why are there so many children poisoned by cuts and bruises? What should *you* do when you get a cut or bruise? You should go to your teacher if you are in school, even if the injury is only a small scratch from a pen point or a pin, for this may cause a serious trouble called Blood Poisoning. If you are at play outside of school time and get a scratch from a rusty nail

or tin can, do not say "Oh, this isn't anything. It will be all right in a few minutes." Go directly to your mother or someone else who can apply iodine.

The Massachusetts Safety Council, a group of men and women who are trying to save children and grown-ups from accidents, gives us the following advice:

"When the skin is cut or broken, apply iodine. (For home use get the 3½% tincture which should be kept in a bottle with a rubber stopper and marked *poison.*) Wash the flesh around the wound, but do not allow the water to enter it, and bandage it with a clean cloth. *Never* use a soiled cloth or court plaster. A surgical dressing is best. If a cut is so deep that an artery has been severed, press it against the nearest bone and bind tightly. Blood from an artery always spurts. From a vein it does not spurt. Call a doctor promptly in a case like this."

The council also warns us to avoid accidents by keeping away from sharp knives and other metal objects, broken glass and jagged tin cans. This, perhaps, is too much to remember, but do be careful about these things.

Try not to get scratches or other injuries that cause bleeding, but if you do get such an injury, especially from something that is rusty or dirty, go at once to your teacher or some older person to have it cared for. Every school has a First-Aid box with the proper things to help you. Usually water should not be put on such wounds, as water itself may contain germs, and it also prevents iodine from working its best. The cleanest possible cloth and iodine, which an older person should put on for you, are the best remedies to save you from a possible case of blood poisoning. Whatever you do, do quickly, as blood poison germs are very quick themselves and you have to get ahead of them.

We were very pleased to received a pretty poster showing one of our last week's mottoes. It was sent us by a girl in Grade 5, Bridge Street School. This week we send you another good slogan.

"Safety Spells Success"

Yours for Safety,
The 12B English Class

Needles and pins; Needles and pins!
When a rusty point scratches
The trouble begins.

One member of the class was appointed to represent the group at a safety conference which was held at the Town Hall. This representative made a report of the work being done by the schools and brought back to the class news of what others were doing.

At the suggestion of another student, a committee was appointed to visit the town's industrial plants. The committee later reported in class on the safety work that was being carried on in these plants for the protection of the employees. It was also through the efforts

of one of the students that the cards with the ten safety rules, referred to in the first bulletin to the children, were secured. These little cards, prepared by the Springfield Automobile Association, gave excellent advice to parents about their children's safety. All other material was kept for reference use by the class.

During these reports and discussions the students became exceedingly interested and felt that it would be a fine thing if they, themselves, could go and talk to the children in the grade schools. Thereupon short talks were prepared, suitable for the younger children. A "flying squadron" of speakers was organized and arrangements made with Mr. Fausey to have these speakers taken to the different elementary schools. The following speeches were prepared and rehearsed.

SAFETY

Do you know what the word 'patriotic' means? A patriotic person is one who is true to his country, who loyally supports it and will try his very best to make his country better when he leaves it than when he came into it. Have you ever thought that if you would try to prevent accidents, you would be patriotic? Perhaps you have never thought so far as that, but if you will just try to figure it out a little while, you will find that the prevention of accidents can be called a patriotic duty.

There are many, many people who become victims of accidents. Some recover, but many are left cripples for life. What might these crippled people have done in this world if they had been a little more careful? They might have become great men and women. Who knows how many would make future presidents of the United States? But now what are they? Helpless cripples in most cases. They will have to be a care to someone throughout life. They cannot fight for the maintenance of their nation's independence if they are called upon. They have not so great a chance to become strong influential citizens without their normal strength and perfect bodies.

Now for the numberless ways in which these people become cripples. Accidents from vehicles are the commonest and the cause for these in most cases is carelessness. To be more careful, we must first find out the commonest kinds of accidents and teach ourselves and our smaller brothers and sisters how to avoid them.

First of all, we must teach our younger brothers and sisters that they should not play in the street. To stop, and look, before crossing the street is something all of us should learn. This means that on rainy days when we are carrying umbrellas we should hold them high and be on the alert; it also means that our minds should be crossing the street with our bodies and not day-dreaming, as a great many do.

There are so many things to which we could say "Don't" that it would take too much time to mention them. One command can cover the whole vol-

ume of "Don'ts" and that is "Be Careful" and you will be making this nation stronger and better.

Miscellaneous Accidents

Did you know that scores of children were killed last year by accidents that could have been prevented if someone had been a little more careful, and just as many children will be killed this year, unless we "Make Safety First Our Middle Name?"

Did you ever stop to think that when you play with matches or kerosene near a lighted gas jet, that you may not be harmed, but some other child, perhaps a chum of yours, may be in danger? You may set fire to a building that has taken months and months to build.

When you are walking along the street and see a hanging wire, you think that you must touch it, for no reason whatsoever. But there is a reason why you should not touch it. That wire may be a live wire, and instant death may be the result.

It has always been a pleasure for children to play around a new house that is being built. If the carpenter tells you that it is not best for you to stay there, you think he is a "crab." But he is in the right and you are in the wrong. Falling objects are dangerous.

Do you like to play "Indian?" Most children do. The object of the game is this: get a few feathers for a headgear, get your lungs in good working condition, so that a war whoop may be raised when you see the enemy, and get some dangerous weapon, like a stick. When you run after the enemy, you have the stick pointed toward him. Some Indians do not fall down, but others do. What is going to happen when they fall? Why, they will land on the stick, of course. Perhaps you can guess what will happen when the Indian falls on the stick.

Fourth of July is always a big holiday for all. Shotguns, torpedoes, firecrackers, in the day time. Sparklers, Roman candles, and pretty fireworks and set pieces in the park in the evening. It is a time when every boy and girl should have a good time, shooting off his firecrackers. But there are certain dangers which come from the Fourth of July that could be prevented if someone were a little more careful. When your firecracker won't go off, you make a "fuse" out of it, by splitting it in half and touching a match to the powder. Undoubtedly, you have seen some older person do it, and of course, you thought it all right for you to do the same thing. But let me warn you, older people don't know it all.

Interest in safety was beginning to permeate the entire school. The Junior English class wanted to participate in the work. As it was rather late in the year to do much with the "flying squadron" because of the congestion of all work in May, it was decided to postpone this feature of the work until the following year, and delegate safety to the Junior English class.

Early in the fall of 1925 the new Senior English class picked up the threads left by their predecessors. Miss Neal brought to class a bulletin on fire prevention that had been prepared the previous spring for use in the grades. A discussion as to the material and suitability of the style of this bulletin followed. Some changes were made, and suggestions given for additional information that might be included. Each member of the class was asked to prepare a letter on fire prevention for some special elementary grade. These letters were brought to class, read, and criticized.

The next day short talks were prepared on the same subject and given in class, and the students were assigned to speak in those grades to which they seemed best adapted. In spare periods the students rehearsed one another. It was distinctly a coöperative affair, into which all entered heartily. Other English classes asked to be allowed to take part in this work, and a list of topics for future work was given to them. Applications for places on the "flying squadron" were also accepted from all classes. On the Friday of Fire Prevention Week, the "flying squadron," a group of fourteen students, spoke on fire prevention in every elementary school.

Every student who participated in this work was enthusiastic and felt the experience not only valuable but enjoyable. One girl speaker reported back to class that the children to whom she had spoken were "so impressed that their eyes nearly popped out of their heads." Another speaker found that her "children" had prepared a little safety play in her honor. All asked that the work be continued. The grade teachers were delighted with the results and the responsiveness of their children. The mere fact that the high-school boys and girls were working for safety was in itself a tremendous boon for the work with the younger children.

While the enthusiasm for the work was fresh, the students met at the close of school one day in the latter part of October and outlined plans to carry the safety work throughout the entire year. Monthly bulletins or letters will be sent each month to the schools below the senior high form, and the "flying squadron" will continue with the short safety talks. The collection of local and other suitable material for safety work with children will continue. Plans are under way to secure a speaker to address the high-school assem-

bly on "Safety," and the senior class expects to prepare one or two special safety programs for the entire student body during the year.

The safety work has been effective; the interest in the activities has carried over from one year to the next in a natural, normal development. It has made for a real understanding and sympathy between the high-school students and the younger children, and is giving the high-school boys and girls an opportunity to understand and to practice real and constructive principles of citizenship. In other words, safety has been used here as the basis for social activities, and the influence of a small group of high-school students has been in a large part responsible for developing the same socialized attitude, not only among high-school students, but among the younger children as well.

CHAPTER IX

COURSES OF STUDY AND METHODS IN SAFETY EDUCATION: RURAL SCHOOLS

A. SAFETY EDUCATION IN MICHIGAN RURAL SCHOOLS

MARVIN S. PITTMAN
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When requested to contribute to the section dealing with Safety Education in Rural Schools, the writer undertook the task with interest and energy, but soon discovered that what had been done seemed to be very limited and restricted to three fields:

(1) Bulletins, chiefly on fire hazards, which had been issued by state departments of education and recommended for special use by the teachers of rural schools;

(2) Campaigns which had been conducted by state highway police and by the railroads to promote safety in travel, some of which had been effective in rural schools; and

(3) Specific safety education, which had been carried on in a number of cities and had considerable spread into the rural territory round about. Typical of this is the campaign for safety in the city of Detroit, located in Wayne County, Michigan. The county school authorities have adopted a score card for the rural schools, called the "Gold Star School." In order that a school may be a "Gold Star School," it must attain fifteen standards, one among which pertains to safety education in the rural schools.

Because of the fact that all of the material which has influenced the country schools has originated in some quarter other than the rural schools themselves, it seemed desirable to see what could be developed in a short time from within rural schools. With this in mind, the teachers of the rural training schools of the Michigan State Normal College School, at Ypsilanti, were called together. The problem was presented to the teachers. The suggestion that a brief study of the question be taken up in their schools met with a hearty response. For three weeks the subject has been dealt with according to the ingenuity of the teachers and the interest of the children. It so happened that, in quite a number of the schools, accidents to the children served as a motivating beginning. Each

school has dealt with the question from whatever angle interested it most. A few of the reports from the teachers of the work carried on in their schools are given on the following pages. Space would not permit the publication of all or even the full publication of any. What is given may be suggestive to other rural teachers.

Denton School, Primary Grade

Ella O'Neil, Teacher

We had several conversation lessons for the entire room on how to keep safe when walking on roads, crossing roads, railroad tracks, etc. For our special project we took "Fires," especially the danger from playing with matches.

A short two-act play was worked up to impress the results of playing with matches.

Act I. Good children playing with toys. Bad boys come in with kerosene and matches and coax others out to build a fire. Finally, bad boys go out themselves and build a fire by the old haystack.

Act II. Good children doing a folk-dance. Bad boy, head done up in bandages, limps in. In response to questions, he tells how the kerosense can got too close to the fire, and how all of the boys were severely burned. After watching the children dance, the burned boy cries bitterly because he cannot dance and declares that he will never, never build a fire again.

The good children decide to go to see the burned boys, but before they go, they say their Safety Creed, as follows:

Safety Creed

Beware of fire for Safety's sake
During every hour that you're awake.
Of matches, not one, you shall touch,
Then you will not suffer much.
Play always with things safe and sane,
That will save much ache and pain,
If all these rules you'll keep in mind,
A safe, good time you'll always find.

Denton School, Grammar Grades

Axel Peterson, Teacher

To carry out the safety-first education in our training school and to do a thorough job, it was felt that the possible dangers of

our community must be listed. To this end, the pupils compiled a list of possible accidents that might occur in the home, on the way to school, and in the school. With the combined effort of all the pupils, nearly two hundred ideas were listed. We were now ready to go to work.

The pupils and I decided upon four ways of doing our work: first, writing compositions; second, safety first plays; third, poster making; fourth, the building of miniature stages, each stage to present an idea.

The compositions written by the pupils dealt with the prevention of accidents. Suggestions were made for the improvement of crossings, better signals, automobile inspection, etc. First aid for accidents was also brought into the compositions written by the pupils. The best work was to be presented to the parent-teacher club or used in our school paper.

In building the miniature stage the pupils used small paper boxes. In these boxes were placed objects carrying out the idea in mind. One girl secured from an agricultural paper the picture of an angry bull with head down running at full speed. In another paper she secured the picture of a farmer running for his life. In placing the two on the stage, with proper surroundings, she put forth her idea of safety first, which was: "Keep out of pastures."

In making posters, the pupils used colored paper, water colors, crayons, and pictures from magazines. The usual procedure of poster-making was resorted to.

Safety first was carried out also in the writing of plays by the children in the upper grades. The plays were very carefully finished and will be presented before the parent-teacher club.

Stone School, Primary Room

Helen Beck, Teacher

After a free discussion of farm accidents, the children decided to work especially upon the subject of "Safety from Falls." This thought was carried out as closely as possible in all our school work during one week.

During their free period several children made posters which served as a stimulus to others. When almost every child had made

a poster, we used these as the basis for original stories told in the language class.

In reading, a number of original stories were written and read by the children. Finally, a story was chosen as the foundation for our work on the sand table. This story was called "Mr. Careful's Children and Mr. Careful's Home." Buildings representing the Careful farmstead were made on the sand table. Paper dolls were placed to show what a happy and safe time the children had at Mr. Careful's party, where no one was unfortunate enough to fall.

From this title, several slogans were composed and printed by the children and later posted about the room in conspicuous places. They were

"Be a Careful Child"
"Careful Children Climb Carefully"
"Careful Children Watch Their Steps"

STONE SCHOOL, INTERMEDIATE ROOM
GERTRUDE HOAG, Teacher

In studying safety education the pupils in the third and fourth grades first listed all the accidents that they knew had occurred on farms. The accidents were classified into groups, so that one classification could be studied or worked out to help prevent the occurrence of such accidents. The group chosen in our room to work on was "Hurts from Farm Animals." Short stories were written illustrating that unkindness to animals is the chief reason for their hurting us. A short dramatization was written by the fourth grade, showing the different ways a dog was greeted by different people. The dog was unfriendly to those who scolded and kicked at him and friendly to those who spoke to him and treated him kindly. A big poster was made by the entire room. Pictures of animals were in the center of the poster. At the top and bottom were the words "Be Kind to Us and We Will Not Hurt You." Pictures illustrating kindness to animals were found in newspapers and magazines.

The following slogans were made and put up around the room:

"Do to animals as you would have animals do to you"
"Strike and you will be struck"
"Animals are our friends, treat them kindly"

STONE SCHOOL, GRAMMAR GRADES

MILDRED ROBINSON, Teacher

The children of the grammar grades of the Stone School first discussed accidents that might happen to people, especially children living in the country. Seventy-eight accidents were listed. These were then classified under several inclusive heads. Accidents from fire then seemed most attractive to the group for intensive work.

Much oral composition was done, in which the children told about fires in the country that they had heard about, followed by a discussion of how these fires might have been prevented or checked. This brought forth the suggestion to make a book of true fire stories. Each child wrote a true story of some fire he knew about, and these were collected into one booklet, with an attractive red cover bearing in black letters the words, "True Stories of Fires." Each story showed the harm of carelessness and pointed the way to safety from fire. Some of their subjects were:

Carelessness
Fourth of July Fun
The Lantern
A Terrible Mistake
A Thoughtless Act
A Defective Chimney
The Careless Man
My Fire Lesson
Heated Hay
Be Careful

Some fairly good rhymes were also written. One was:

Pretty it is
In the fireplace at night,
But when a house burns
It is a sad sight.

A little fifth-grade girl composed this:

FIRE

Fire is a friend of all mankind,
But when loose he's a foe.
Oh, do not say, "Oh, never mind!"
But help to make him go.

For when your home he has destroyed,
You will not want to roam,
But wish you had, as once you had,
Your dearly loved old home.

As a group, the children worked out a large poster, showing a gift-laden, decorated Christmas tree springing into blaze from a

lighted candle. The poster bore the words: "Don't Use Lighted Candles." Several of the children made individual posters, showing such ideas as the danger of kindling a fire with oil, of leaving a fireplace unscreened, of leaving matches where mice might gnaw them, of throwing lighted matches down carelessly, and so forth.

Slogans or mottoes were made by the children, printed by them, and put up around the room. Some of them were:

"Protect your fire"
"Guard your fire"
"Fire is a dangerous plaything"
"Unguarded fire is a dangerous enemy"
"Be careful with fire"
"Screen the open fire"
"Matches are poor playthings"
"Put out your camp fire"
"Fire and oil are not good friends"

They also had a song, "The Fire Wardens," to the tune of "Marching Through Georgia." It follows:

THE FIRE WARDENS

I. We're the boys and girls of Stone
Who want to do our share
To make the country safe from fire,
We always will take care
To guard against all carelessness,
And safety plans prepare,
Working for safety education.

Chorus:
Hurrah! Hurrah! We're out the fire to fight.
Hurrah! Hurrah! We'll work with all our might.
To put our awful enemy, destructive fire, to flight
Working for safety education.

II. We'll never start a fire unless
We plan to stay right there.
We'll never play with matches, and of oil we will beware.
We never will be thoughtless, no,
We always will take care,
Working for safety education.

The center of interest during the study of fire prevention was a play, "The Lesson," written and dramatized by the children. The play was written by committees of four, working together, one committee for each of the three acts. A synopsis follows:

Scene—Living room of a country home.

Act I—A fall evening. Children (two girls and three boys) and mother sitting before glowing fireplace, get to talking of dangers from fire. Several stories are told of damage from fire, mother makes explanations, and children declare intention of always being careful.

Act II—Afternoon a few days later. Mother leaves on errand. Older children do not watch younger ones, who get to playing in the fire as they are roasting apples, and the youngest child's dress catches fire. The oldest boy snatches up the rug and smothers it.

Act III—Immediately after. Children crowding around little sister notice curtain burning, put it out with fire extinguisher. Mother enters. Demands explanation. Children admit carelessness, and realizing what might have happened, promise never to play with fire again.

The light for the fireplace and for the burning curtain was produced by electric bulbs covered with red paper. A realistic blaze effect was produced by tying red and yellow crepe paper strips to a small electric fan.

Carpenter School
Cora Haas, Teacher

I. In our school our aims were:
   1. To awaken the interest of the children in causes and means of preventing accidents in the country;
   2. To awaken particular interest in accidents caused by poisons;
   3. To teach some facts which would be of actual daily value to the children.

II. Our general plan of work was:
   1. To have pupils compile a list of all of their known accidents;
   2. To classify those accidents;
   3. To pick out the particular type of accidents in which they were peculiarly interested;
   4. To collect and report to the group information with reference to those particular accidents;
   5. To adopt safety slogans;
   6. To make posters and mottoes relating to safety.

III. The many accidents listed were classified as due to the following causes:

1. Falling
2. Scratches
3. Bites
4. Cuts
5. Explosions
6. Fires
7. Blows
8. Electric currents
9. Water
10. Firearms
11. Traffic
12. Poisons

IV. Injuries caused by poisons were due to the following sources:
1. Drugs
2. Spoiled foods
3. Germs
4. Poisonous plants

V. Poisonous plants are of four classes:
1. Mushrooms
2. Plants
3. Shrubs
4. Trees

VI. Summary of facts and conclusions relating to each of these four groups:
1. Mushrooms:
   a. All mushrooms are not edible;
   b. The terms 'toadstool' and 'mushroom' have been given promiscuously;
   c. The most deadly of all is a mushroom;
   d. Know the variety before eating any.
2. Plants:
   a. Many plants contain poisons.
   b. Among these we find:
      a'. hollyhocks
      b'. St. John's-wort
      c'. tulips
      d'. milkweed
      e'. rubber plants, etc.
   c. Do not put leaves or other parts of plants in your mouth.
3. Shrubs:
   a. Many shrubs contain poisons.
   b. Among these we find:
      a'. honeysuckle
      b'. sumac
      c'. clematis
      d'. bittersweet
      e'. ivy, etc.
   c. Know your variety before putting anything into the mouth.

4. Trees:
   a. Many trees contain poisons.
   b. Among these we find:
      a′. horse chestnut
      b′. walnut
      c′. spruce
      d′. weeping willow
      e′. tree of Heaven, etc.
   c. Do not place anything into the mouth which you do not know is edible.

Begole School

Velma Foster, Teacher

In our campaign of safety education we made a general survey of accidents in the country. It so happened that just at the time we took up this study the pupils in the upper grades of our school were particularly interested in their English work. The various classes had been doing some work in group composition of rhymes. Some one suggested that the pupils try to set up their ideas of safety through a poem. They conceived of an old farmer sage at the crossroads country store dispensing information on how to be safe. Below is given the poem which was an outgrowth of group effort under the guidance of the teacher.

Overheard at the Country Store

"If you would live to a good old age
In the country," said the farmer sage,
"Be careful!"

"Handle your lamps with the greatest care,
Keep your chimney in good repair,
Use safety matches!"

"Put hay and grains in the barn, well cured,
Against spontaneous combustion then you're insured,
It pays!"

"Since lightning rods have been invented,
Fire, loss, and trouble have been prevented,
Invest!"

"Building fire with oil, I really must mention,
Because it is a deadly invention,
Beware!"

"Chain the bull, though you're not suspicious,
And if he shows that he is vicious,
Sell him!"

"Use a good strong rope to unload the hay,
Keep your wagon and whipple tree, strong, I say,
Prevent accidents!"

"Watch where you're going, front or back,
There may be children right in the track,
They're precious!"

"Mind your binder, mower and rake,
A little care will save the break
That cripples!"

"There's danger in the shredding machine,
The buzz saw is a thing that's mean,
Hands off!"

"The engine's powerful, but can't reflect,
So treat whirling belts with great respect,
Lest they kill!"

"Put burglar alarm on house and barn,
To keep the thief from doing harm,
They steal!"

"Pick up all tacks, nails, and glass,
And keep them off the fresh green grass.
They hurt!"

"Eat only mushrooms and berries you know,
You'll escape early death by doing so,
Be sure!"

"From three-leaf ivy, keep your distance,
And bob-less sumac is another instance,
They're poison!"

"Of all these things and many more,"
Said the farmer sage as he left the store,
"Be careful!"

Lincoln Consolidated School, Third Grade

Robert Louis Stevenson Room, Maude Ramsdell, Teacher

A safety program was started in the Robert Louis Stevenson room at the Lincoln School following three accidents in which children in that room were victims. All were falls. One was at the house, resulting in a broken arm; the others were at the barn.

The first few language lessons consisted of stories children related of accidents which they had seen or of which they had heard.

The first day all were about highway accidents. The second and succeeding days they were of farm accidents. Many children seldom participating in general conversation made valuable contributions.

Since the interest in finishing stories begun by another had long been manifest, a safety story was started and the children finished each chapter. The story was patterned after the very popular story book just read, *Work-A-Day Doings on the Farm,* in which "Big Bear Dan" and "Little Bear Ben" engage in interesting activities.

The first chapter introduced the characters. There was a family of father, mother, and four children. There was Big Brother Robert (the children gave them their names), Big Sister Mary, Little Brother Billie, and Little Sister Marian. Big Brother Robert was ten years old. He went to school. Big Sister Mary was about eight years old. She went to school. Little Brother Billie was four years old and did not go to school. Little Sister Marian was three years old and did not go to school. One day the mother and father received an invitation to go to a farm picnic for the whole day. They said they feared they could not leave the children. Robert and Mary overheard the answer.

The problem of the second chapter was to see if Big Brother Robert could prove to his parents that he and Mary could be trusted to look after the little folks. He saved his little brother from being run over by a car. His father saw it, told his mother, and they decided they could safely go away for a day.

The problem of the third chapter was to have the children plan what they must be careful of in looking after the brother and sister. So each child brought home the Safety Booklet just made at school, and they re-read and discussed them. Mary's was: *Safety About the House.* She had these listed:

Be careful of matches
Keep matches away from little children
Be careful on step ladders
Be careful on steps and stairs
Take care of all glass
Keep children away from stove
Keep children away from hot grease
Keep children away from hot water
Gasoline is *dangerous*
Pick up nails and tacks
Carry shears in the right way
Keep knives, pins, and needles put away
Put old tins in a high box
Don't climb on furniture.

Robert's book was: *Safety Around the Barn.* He had these rules listed:

Be careful of pitch forks (carry points down)
Be careful on ladders (place them carefully)
Be careful on silos
Play in back of hay mow
Keep little children off beams
Keep little children away from hay forks
Keep children away from stock
Teach children to stay away from running machinery
Always be careful around knives and saws
Never keep loaded guns in the house
Take care of axes

The fourth and last chapter considered the problem of the day when they really stayed with the children. This question came about naturally after the father and mother were started: What is the easiest way to keep little children from getting into things and getting hurt? Immediately came the answer: "Play with them." Games were then suggested. These were decided on as safe: Tag, Upset the Fruit Basket, Pom Pom Pull Away, Tap the Ice Box, Play House, Drop the Handkerchief, Play Horse. Hide and Go Seek was ruled out as dangerous. Colors, and Do This And Do That, were considered too difficult for them to understand.

The end of the story was conversation with the parents about the success of the day.

Lincoln Consolidated School, Sixth Grade
Washington Room, Emily DeVore, Teacher

A "safety first" project was launched in the sixth grade because several accidents, which might have been avoided, had happened in the community recently; conspicuous among these was a boy who shot himself through the thigh as a result of carelessness in handling a gun. The conversation drifted from this to other accidents which had happened in the community at various times.

As a result of these talks, the room decided to put on a campaign against carelessness which might result in accidents. This campaign was to be centered around their weekly paper, the "Washington Weekly" (so called because the name of their room is George Washington). Pupils began bringing clippings from home which told of any accident which in their judgment might have been avoided. These were pasted on the first page of their paper.

A list was then made of the accidents which had occurred at home or had been clipped from the papers. They fell into three general heads: accidents in the home, at school, and in traffic (street and highway). The list was as follows:

I. Home
   1. Fires
   2. Burns and scalds
   3. Poisons
      a. Medicine
      b. Plants
   4. Drowning
   5. Falls
   6. Farm implements
   7. Animals
      a. Wild
      b. Tame
   8. Guns

II. School
   1. Playground
   2. Indoors

III. Traffic
   1. Highway
   2. Street
   3. Railroad

After classifying the accidents, the next step was to see what might have been done to avoid them. The class adopted "Safety First" as its slogan and decided to include a fourth topic in working out the project—"Safety in Health." The room was then divided into four groups, and each group selected a leader. These groups further divided into committees, and each committee worked on one sub-topic. The name chosen for each heading was: "How I can help in 'Safety First' in My Home" (School, Traffic, Health, as the case might be).

In the papers which dealt with material especially applicable to rural children were such statements as:

GUNS

I will not point my gun at any one, even though it is not loaded.
I will not carry my gun loaded, unless it has a "Safety" on it.
I will be sure my gun is not loaded when I clean it.
I will not carry a gun when it is not working right.
I will not carry a loaded gun into the house.
I will be careful when I shoot—not to shoot unless I know what I am shooting at.
I will be careful in climbing a fence with a gun.

POISONS

I will not eat wild berries unless I know what they are.
I will not eat mushrooms unless I am positive what they are.

ANIMALS

I will not do anything to make an animal angry.

I will not go near an angry animal.

I will not tease turkeys, geese, etc., for they might fight me.

FARM IMPLEMENTS

I will hand a pitch fork down from the hay mow with the handle down first.

I will be careful when working with the silo filler.

I will not leave rakes, hoes, and other implements lying round on the ground for some one to step on.

I will keep out of the way of a tractor, drag, and other implements my father is using in the field.

"SAFETY FIRST" IN HEALTH

I will not borrow a comb, hair brush, or tooth brush belonging to another.

I will not wipe on a towel some one else has used.

I will not drink out of a glass which some one else had used without washing it.

I will not chew gum any one else has been chewing.

I will not eat from the same piece of candy, apple, or anything else that some one else has been eating.

I will put on my rubbers when it is stormy.

I will remove my rubbers when I come into the house.

I will dress warmly when I go out to play.

Each topic was attacked in the same way by the different groups, and when complete, was pasted in their newspaper with the signature of the members of the committee.

The next step was to make posters to emphasize some of the most important points in "Safety First." These posters added about six pages to the newspaper. (Each page of paper is same size as a regular newspaper.)

Here are some of the posters which seemed especially suggestive for rural communities:

A man carrying a gun in the house. Under it was written: "I will not take a loaded gun in the house."

A girl in a deep hole up to her neck. "I will not go wading in deep water, for I might step in a hole and drown. I will keep near the shore."

Some children playing on the banks of a river. "I will see that little children do not go too near the bank, for they might fall in. I will also see that they do not go in wading alone."

Girl running toward an angry cow. "I will keep away from angry animals."

Girl walking on a slanting roof. "I will not walk on such dangerous places for I might fall."

It was surprising and gratifying to see the initiative and originality the pupils showed in making these posters.

During the fall pupils had been attempting original rhymes, so this project gave an opportunity for them to try some in "Safety First." Here are a few of them:

In crossing the street,
'Tis well to repeat
This warning both ancient and true:
"Look first to the left
And then to the right,"
And then you will surely get through.

Ella Wanty.

If ever I see a piece of glass,
No matter how many eyes were on it cast,
I will pick it up and wrap it with care,
For it will save some one a very bad tear.

Harry Sparrow.

Don't play with matches or gasoline,
Or you'll have to use some vaseline.

Mary Bobic.

IN THE COUNTRY

Honk! Honk! Honk!
Keep to the left I say,
When walking down the highway,
At night or in the day.

Walter Bushong.

IN THE TOWN

If you watch the traffic cop,
Accidents he'll surely stop,
If you mind your P's and Q's,
He will surely you excuse.

Walter Bushong.

Do not cross the road,
When cars are coming near,
For cars are very dangerous,
Now mind, look out, my dear.

Vivian Farrell.

The pupils became so interested in this work of "Safety First" that they elected a "Safety First Officer," who is to carry on the good work.

The work for the present was concluded by an invitation to the parents to visit the school to hear the reading of their paper and to see some original dramatizations on the campaign. This work was rather impromptu, but served to put the idea across. Among the dramatizations were the following:

Crossing the road. A girl wants to cross the road. She sees an auto coming, but thinks she can make it across in time. The auto strikes her and knocks her down. The driver gets out to see if she is hurt. She was just stunned. He helps her across the road and warns her to be careful the next time.

The next scene shows her starting to cross the road again. She looks up the road and decides 'Safety First' is best, so waits till the car passes.

Broken glass. A piece of glass has been broken and left on the school ground. A boy comes along and sees it, but says he is not going to pick it up for he might cut his finger; anyway he does not care if some one does get hurt.

The next scene shows his little brother running along barefooted. He steps on the glass and cuts his foot badly.

The last scene shows another boy coming along and sees the glass. He stops and picks it up and carries it into the house. He wraps the broken pieces in a piece of paper before throwing it in the waste paper basket for fear some one might cut his hand on it.

Batting. The first scene shows a boy who throws his bat after striking and hits one of the players standing near. The next scene shows a boy who drops his bat down near the base, so no one will be struck with it.

Later in the year the safety first work will be resumed. Then pupils will focus their attention on "What can I do to help after an accident has happened." At present the motto has been: "An ounce of prevention is worth a pound of cure."

Conclusion

The foregoing reports will give a fairly accurate impression of the work that was done in all of the thirty-three rooms of the rural training schools of the Michigan State Normal College. The subject served as a basis for some of the most constructive and interesting work of the year. The teacher of Junior-High-School English, Miss Rosa Wyatt, did some very unusual work with her classes, but owing to illness has been unable to report it in detail. Many projects have been begun which will continue for several weeks. This has been one of the best means of socializing the curriculum that we have thus far tried.

B. SAFETY EDUCATION IN DELAWARE RURAL SCHOOLS

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I. GATHERING DATA ON THE PRESENT SITUATION

To discover the extent and type of safety education in the rural schools of Delaware, a survey of the situation was conducted in the following manner:

1. A conference was held with Dr. H. V. Holloway, State Superintendent of Public Instruction, and Mr. H. B. King, Assistant in charge of Elementary Schools, concerning possible sources of information.

2. Questionnaires were sent to various supervisors of the three counties asking (a) how many one and two-room schools there were under their jurisdiction; (b) in how many of these schools an attempt was made to introduce safety education during the past year; and (c) what subject matter was included and what was the usual method of procedure.

3. Visits were made by the writer to various typical schools of the three counties in order to observe the location of the school and its environment, to see the type of building and equipment, to discover the type of teacher, her training and experience, and to observe illustrative lessons.

4. A conference was held with W. D. Smith, Manager of Delaware Safety Council, to secure information as to the causes of accidents in rural communities, in order to discover and formulate what might be considered typical rural hazards.

5. Conferences were held with Miss Etta Wilson, Executive Secretary of the State Parent-Teacher Association, to discover what this association was doing to aid in the work of safety education.

II. RESULTS OF THE SURVEY

The results of this survey seem to show that during the year 1924-25 an attempt was made in most of the one and two-room rural schools of the state to teach some phase of safety education. In the majority of the schools this took the form of health education, fire prevention, and safety on the highways.

A number of these schools went more deeply into the matter and attempted to make all forms of safety education part of the civic consciousness of the children and of the community. The type of teacher, her training and experience, determined to a great extent how well this was done.

The work of the State Parent-Teacher Association under the direction of Miss Etta Wilson, Executive Secretary, took as the topic for one month's program of Parent-Teacher meetings: "Accident Prevention—a Challenge to State and Nation." A program leaflet was sent to all Parent-Teacher associations. This not only gave a suggestive form for the program, but also supplied valuable information for school and home.

The Delaware Safety Council, under the direction of W. D. Smith, Manager, in addition to supplying some informational material for the program leaflet, provided material for a pictorial leaflet which was also sent to all parent-teacher associations. This gave pictures of typical rural accidents, and showed how to prevent them. The circulation of this material, with the outlines and suggestions of the State Department of Education and of the Rural Supervisors, resulted in a wide interest in safety education.

With the aid of the Service Citizens Association, the old rural schools of Delaware are rapidly being replaced by modern well lighted buildings. However, the old-fashioned one-room school, heated by an unprotected stove and lighted by kerosene lamps, is still very common. These schools have an enrollment of from 12 to 40 children, depending upon their location. The equipment is in many cases meager and uninteresting. The teacher is frequently immature and untrained.

In order to make a curriculum that will fit the needs of the children for whom it is planned and the community in which they live, real life conditions must be taken into account. In the following suggested course of study, an attempt has been made to consider all of these conditions and to adapt the subject matter to the experiences of the children. As most rural schools have many grades and few children in each, it seems advisable to divide the work into two sections—one for the lower grades, and the other for the upper grades.

In the lower grades the main thought is centered around: "How can I help mother and father keep our home safe and happy by caring for myself?" In the upper grades it is: "What can I do in order that I may keep myself well and strong, and also that I may protect others?"

III. Proposed Course of Study in Safety Education for One- and Two-Room Rural Schools

The Objectives

To make the child familiar with the simple rules of conduct that will keep him safe and well—at school, at home, and on the roads.

To acquaint him with the necessity of obeying signals and caring for himself.

To develop in him an accident conscience.

To develop in him a consciousness of the need for safety.

To develop a desire to make the school, the home, and the roads safe for all.

To develop ideals of service in the older children by teaching care and protection of children younger than themselves.

To develop the idea that a good citizen protects himself and others by avoiding accidents and by acting quickly and intelligently in the case of emergency.

Subject Matter for Grades I to III

"How can I help mother and father by being careful?"

A. At Home:

1. Keep away from the fire.
2. Put my toys away.
3. Keep toys and other things away from the stairs.
4. Be careful when I carry sharp or pointed things.
   (a) Walk, not run, when I carry sharp things.
   (b) Carry scissors and knives point down.
   (c) Put broken glass, needles, and pins in a safe place.
5. Be careful when I climb. If I must stand on a chair, use a straight chair, never a rocker.
6. Leave matches alone.
7. Keep things away from my eyes, ears, and mouth.
8. Keep away from pans or tubs of hot water.
9. Walk, not run when I go upstairs or come down.
10. Look where I am going.

11. Put away rakes, shovels, and forks that I see about.
12. Keep away from farm machinery.

B. On the Way to School:
1. Learn to walk on left side of the road so I can see autos or teams coming.
2. Watch for sticks or muddy, slippery places so I won't fall.
3. Never throw stones at animals or children.
4. Go directly to school and not play along the road.
5. Never eat things I see growing along the road unless I know they are not poisonous.
6. Never throw sticks or stones at trees to knock off nuts or fruit; I might hit a child or break the tree.
7. Never run with a stick in hand.
8. Walk, never run through the woods; I may trip over sticks or brambles.

C. In School:
1. Keep away from the stove.
2. Never throw things into the stove.
3. Keep trash from the floors.
4. Keep my feet under my desk so that others will not trip.
5. Carry sharp things carefully.
6. Play on school grounds, not on the roads.

Subject Matter for Grades IV to VI

"How can I protect myself and take care of the younger children?"

A. What are the chief causes of accidents in our community?
From various sources try to discover the accidents that occurred during the past year. Try to determine their causes and how they could have been prevented.

B. What are the duties of a good citizen with regard to accident prevention?
1. Would a good citizen leave farm implements where someone could step on them and be injured? Why not? What would he do?
2. Would a good citizen cover an open hole, well, cistern, and the like with decayed boards? What would he do?
3. Would he leave broken or decayed boards on his porch floor or steps?
4. Would a good citizen throw matches or rubbish carelessly about?
5. Would he drive a car carelessly? Would he drive rapidly through a town or past a school?

6. Would he build fires in dangerous places or go off and leave a fire unguarded?
7. What should be the attitude of a good citizen toward accidents?

C. What are the duties of a good citizen with regard to the protection of others?
   1. Is it enough for a person to say: "I know where the dangerous places on my own farm are located, and I shall take care of them?" Why not?
   2. Can he say: "I know the cover on my cistern is decayed. It's up to the others to keep off"?
   3. Can a person who thinks only of himself and his own family be a good citizen? Why not?

D. How can I make my home and school safe places for myself and for others?
   1. Have I looked about my home and school to find sources of danger? When I found them, what did I do?
   2. Have I observed the children at their play? Have I found certain rules that would protect them? What are they? Have I found a way to make a real impression on the children, so that they will willingly and understandingly obey those rules?

E. What are the chief rules of safety that I must remember?
   1. Put tools, rakes, forks, axes, etc., in a safe place. Never leave them lying about point up.
   2. Carry forks, rakes, axes, etc., point down. Walk, never run with them.
   3. Carry guns with the muzzle down.
   4. Never point a gun at anyone, even if it isn't loaded.
   5. Walk on the left side of the road, so I can see cars or teams coming.
   6. Obey traffic signals in town.
   7. Never meddle with the gears of machinery, whether the machine is running or not.
   8. Never build fires where there is danger.
   9. Do all that I can to keep myself physically and mentally fit and to protect and care for others.

F. What must I do in order to be ready in case of an emergency?
   1. Fires
      a. Formulate rules for acting in case of fire at home or in school.
      b. Discuss the best means of fighting a field or forest fire.
      c. Discover the best means of extinguishing an oil or grease fire.

d. Formulate simple emergency rules to follow in case clothing catches fire.

2. Accidents
   a. Learn how to stop bleeding.
   b. Learn how to use artificial respiration.
   c. Learn how to support a broken limb.
   d. Learn how to carry an injured person—simple coat and stick stretchers.

Method of Presentation

Safety education should be part of the living experience of the child. It should not be a school subject set off by itself and talked about during a twenty-minute period once or twice during the week.

Activities and habits of the children should be observed and discussed. Safety rules should be written, read, and followed. All of this may be done in connection with reading, language, physical education, civics, drawing, and industrial arts.

IV. Illustration of Procedure from a Two-Room Rural School

Neal's School near Seaford, Delaware, has done some outstanding work along the line of safety education.

This is a two-room school under the direction of Mrs. Katie B. Handy, assisted by Miss Elsie E. Hudson. It is located on a county road running from Seaford to Bridgeville, and is built close to the edge of a deep wood. In spite of its remote location, numbers of passenger cars and trucks loaded with produce pass its doors.

About sixty children from the surrounding farms are enrolled. During the first weeks of the term these children played carelessly about, sometimes in the woods back of the school and sometimes in the road. Mrs. Handy took pictures of these and similar situations and used them as the basis for their work in safety education. (See cuts.)

During civics lessons in the upper grades the dangers of the situations were discussed; the responsibility of children to their parents in the matter of keeping safe was brought out; the subject of laws and why laws are made was explained. The children formulated simple laws of safety for their own situation; a safety squad was appointed to explain these laws to the younger children and to help them to observe them. Some of these rules were:

1. Never play in the road.
2. Run and romp in the cleared space about the school.
3. Never try to play tag in the woods. You may trip over vines or brambles. If you fall on a sharp stick, you may be badly hurt.
4. Never play around a bonfire. Your clothes may catch fire.

NEAL'S SCHOOL, NEAR SEAFORD, DELAWARE.—Children playing in the road. (These and similar pictures of local conditions formed the basis for the work in safety education.)

5. Never build a fire where trees or grass may catch fire.
6. Walk on the left side of the road going home from school so that you can see cars coming and get out of their way.

The wording of these rules and the planning of the talks to younger children were discussed in the English class.

Posters and other illustrative materials were made during the art period.

During the reading period, safety stories and informational material were read and discussed.

The hygiene and health period took care of "First Aid Measures." The children practiced simple measures for cleaning wounds, stopping bleeding, supporting broken limbs, and making stretchers from two coats and available sticks.

NEAL'S SCHOOL, DELAWARE
Carrying injured child on stretcher made from coat and sticks.

In the arithmetic class the cost of accidents was discussed; problems covering the cost in doctors' bills, loss of time, and broken machinery as a result of accidents in the families of the children were formulated and solved.

The children in this school seem to have a very real idea of the meaning of "Safety" and the part it plays in the happiness, health, and prosperity of their community.

CHAPTER X

COURSES OF STUDY AND METHODS IN SAFETY EDUCATION: VOCATIONAL INDUSTRIAL SCHOOLS

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Instruction in accident prevention deserves a prominent place in the course of study of the vocational industrial school. The hazards presented in this type of school by way of equipment, tools, and processes, and the consequent urgent need of safeguarding the apprentices who are undergoing training, constitute the fundamental reason for the prominent place urged for this subject. The great social and economic value of safety instruction is made forcefully clear by the realization that to an exceedingly high degree the skilled mechanic's efficiency, earning capacity, chance for advancement, and all else that goes to make a man well-adjusted socially, depend largely upon his ability to avoid serious injury from the hazards characteristic of his trade. In recognition of these facts, the subject of accident prevention has always been accorded, nominally at least, a place in the vocational school's program of studies.

But the inclusion of safety instruction was in reality merely a gesture. It was a sop thrown to conscience. Those upon whom fell the responsibility for formulating vocational school programs conceded safety instruction a place. There their administrative responsibility ceased. The subject matter of instruction, the method, the time-allotment, the testing for results, these were all left to whoever had the task of teaching the subject, generally the trade-instructor.

The results of this haphazard arrangement were as barren of benefit as the arrangement itself was of scientific procedure. The instructor's only guide was his trade experience; his attitude toward the subject reflected this experience. Even where the teacher believed enthusiastically in the benefits of accident-pre-

vention measures, he would occasionally permit the hardened shop-man's attitude to break through, as when one was overheard to chide a boy who had stopped to pick a splinter from his hand: "Shucks, out in the trade we never stopped work to pick out splinters; we left that for Sunday!" The shop-instructor labored under one other severe handicap imposed upon him by his long shop experience: he was particularly prone to overlook the hazards that lie in the use of the common hand-tools and in the performance of the more commonplace tasks, such as handling lumber or scraping insulation off wire. His safety instruction was also, of necessity, almost always of an incidental nature, being but a part of the instruction given for the performance of a certain job. Instruction in accident prevention so given could go but a little way toward developing those attitudes that are characteristic of the safe worker. Thus, neither the school administrator nor the trade instructor has been able to give to industrial safety instruction the vitality that its importance demands.

In general, then, the defects in safety instruction as now taught, even when trade-teachers are thoroughly in sympathy with it, can be summarized as follows:

1. Safety instruction is given only on such jobs as are obviously dangerous, or which the instructor knows, as a result of his own experience or that of other shop-men, are possessed of dangerous possibilities.
2. Instruction is applied to particular jobs; there is no attempt to cultivate safety ideals or to impart a general body of safety information.
3. The tendency is to disregard minor hazards.
4. The attitude of the instructors in general is that of the foreman toward his subordinates, namely: "They're supposed to know that," rather than the protective attitude of teacher toward pupils.
5. The various vocational industrial schools do not as a rule record the frequency, severity, cause, and time of occurrence of the accidents that occur in their shops. As a result, the instruction in safety suffers from lack of emphasis and timeliness, and the instructors cannot gauge the efficiency of what instruction they do give.

For these defects there is, as will be shown, but one remedy, namely: to give to safety instruction the same status that is accorded to such related academic studies as mathematics and drafting; to construct a curriculum in the subject by the proper, scientific procedure; and to teach it by an appropriate method.

Treated as a separate subject, safety instruction in the vocational industrial school, even on cursory consideration, promises certain benefits of high value. Making it a field of study in itself, instead of presenting incidentally a few isolated facts, gives it a position and dignity worthy of the rôle it has to play. Not only would the subject as a whole then profit, but the instruction itself could also be so given as to place emphasis where a knowledge of school and industrial conditions would show it to be advisable. It would then also become possible to present to the students a body of material on industrial accident prevention that would not only enable these apprentices to meet conditions in the school shops more competently, but also inform them concerning conditions in the industries for which they are preparing. This instructional material could also have a broad range, picturing conditions in industry from times preceding the earliest safety activities to those that prevail in the modern plant. And not only conditions in the industries might be studied, but also conditions about the school itself.

The subject matter could also be so arranged as best to correlate with activities and conditions in the various school shops so that it would not only supplement the instruction being given by the trade instructor, but would also provide for certain conditions of a hazardous nature not directly connected with a job and so not within the scope of the shop-instructor's safety teachings. Information of this sort, suitably presented as to method and time, adds valuably to the apprentice's stock of knowledge and can be made to function to his immediate well-being.

Safety instruction as a separate academic study, provided with a scientifically constructed curriculum and a suitable method, could be made to do more than merely add to the apprentices' stock of safety information; it could also encourage the inculcation of those attitudes and ideals that are characteristic of a safe worker, for not upon knowledge alone, but upon the willingness to apply

this knowledge as well, rests the welfare of the apprentice. That the apprentice in the vocational industrial school can be brought to regard accident prevention as one of the ideals of his trade, and to work intelligently and unselfishly toward the safety goal is one of the most alluring possibilities of safety instruction when administered as has been outlined.

Accident prevention, as a separate, related, academic subject on a par with such subjects as mathematics and trade science, exists, to the best of the writer's knowledge (which is based on a thorough research through the appropriate literature), only on the program of studies at the Essex County Vocational School for Boys in West Orange, New Jersey. In this school it has held that status on the course of study since September, 1919. Our statements as to the advantages of treating safety instruction as a separate study have been based on the experiences and experiments of this school. What follows is a summary of the procedure pursued in constructing a curriculum for safety as a separate subject, in providing it with a suitable method, and of the results of this instruction. This summary, we trust, may be of special helpfulness to other vocational industrial schools that may desire to give the subject the place on their programs that its social and economic importance call for.

What was desired for this subject, when it was decided to include it among the academic studies of the Essex County School for Boys, was a curriculum based, not upon the experience of a handful of men or even upon the industries generally, but primarily upon the experiences of the school itself. Such a curriculum, it was held, would provide instructional material that would function immediately, and, by that very fact alone, would have high possibilities of functioning beneficially during the trade careers of the graduate apprentices. The plan for securing the necessary information was as follows. Shop safety committees, consisting of three boys from each of the school's five departments, were organized. Among their various duties was that of reporting on the *Accident Record,* or *Injured Pupil* form, such as is shown herewith slightly abbreviated, the details of each mishap. The members of these committees were also encouraged to seek the assistance of their trade instructors whenever they felt need of it in filling out this record.

ESSEX COUNTY VOCATIONAL SCHOOL

ACCIDENT RECORD—RECORD OF INJURED PUPIL

Name..... Age.....
Department . . .
Date Injured..... Time.....A.M.....P.M.
Date Reported..... Time.....A.M.....P.M.
Where did the accident occur?.....
Machine, tool, equipment, etc.....
Is there a safeguard?.....
How did the accident occur?.....
How can such accidents be avoided?.....
Was instructor present? . . .

TREATMENT RECORD

Kind of injury?.....
How treated? . . .
By whom? . . .

TIME LOST RECORD

Time lost..... Days.....
Returned to regular work or.....
Signed.....
Accident Prevention Committee

The final check on the reliability and completeness of this record was made by the instructor in Accident Prevention who had the opportunity, while administering first aid, to secure the victim's own version of the circumstances attending the accident. By these means the accident reports attained a high degree of completeness and validity.

To get complete information concerning the causes of all accidents that occurred in the school in order that the instruction might be adequate, the following definition of a reportable accident was formulated: "Every mishap that results in an injury that requires treatment is a reportable accident; and every injury that presents the possibility of infection must receive treatment."

Even with this standard for a reportable accident, which required that practically every untoward occurrence be made a matter of record, the number of accidents was so few that the process of collecting this information was continued for three years, from September 1919 to the end of June, 1922, before a sufficient number of cases, 208, had been collected to form a satisfactory basis for the construction of a local curriculum in accident prevention.

These 208 accident reports, tabulated by school departments are shown in Table 1, which summarizes by departments, the causes of accidents for the entire school.

TABLE 1.—DISTRIBUTION OF 208 ACCIDENTS
Essex County Vocational School

CAUSES	Auto Repair	Carpentry	Drafting	Elec.	Machine	Total
Hand-tools	17	33	0	14	8	72
Machines	0	20	0	3	13	36
Handling material	14	8	0	2	7	31
Horseplay	3	4	2	3	2	14
Struck objects	0	10	0	3	0	13
Burns	0	0	0	5	2	7
Handling chips	0	0	0	0	6	6
Struck by material	10	2	0	0	2	4
Cranking motor	4	0	0	0	0	4
Falls	0	2	0	0	0	2
Miscellaneous	9	2	3	2	3	19
Totals	47	81	5	32	43	208

The reports, as has been mentioned, included suggestions as to the best means of preventing the occurrence of each accident—a matter of importance, for it made possible the most definite kind of safety instruction. The analysis of the item, "How such accidents can be avoided," in the 208 reports resulted in a list, arranged by departments and causes, of 140 specific implications for the prevention of such mishaps. A portion of those that apply to the Carpentry Department is cited in illustration.

MEANS OF AVOIDING ACCIDENTS IN THE CARPENTRY SHOP

Hand Tools

Chisels

Stock being worked on should always be fastened in vise or to the bench.

Free hand should be kept out of path of operation of tool.

While on a job, chisel should be kept in loop in overalls.

When carrying chisel in hand, it should be held in crook of the elbow with sharp edge pointed upward.

Chisel should not be used to scrape putty or other foreign substance off hands.

Handle this tool only when necessary.

Assure user of chisel plenty of room.

Keep cutting edge sharp.

Hand Saws

Start saw-cut on 'pull' stroke.

Keep plane of saw at right angle to that of board being cut to prevent saw from binding and jumping.

Once saw-cut is started, keep free hand well away from saw.

Plane

Hold plane firmly while adjusting blade.

Use stick or similar object to remove shavings from plane blade edge.

Screwdriver

Place work on bench or fasten in vise.

Keep free hand out of path of operation.

Do not use this tool to pry nails loose.

Use screwdrivers that are in good condition as regards handle and tip.

(Similiar material for wrenches, grinders, jointers, handling glass, etc.)

A curriculum based solely on a procedure such as has here been outlined, if put into effect in a vocational school, would not prove completely satisfactory, even though that vocational school included only the same trade departments as did the school in which this study was made. The fact is, as has already been mentioned, the curriculum is not complete. The aim of our curriculum demanded, rather, that the material gained from the study of the causes of accidents in the school should be enriched by certain pertinent topics. Such topics as "Shop Lighting" and "Ventilation," to mention but two, demand a place because of their value to the industrial safety movement. This type of material is too general to be considered by the trade instructor. Another type of material, which includes such topics as "The History of the Movement for Industrial Safety," "Coöperating for Industrial Safety" and "Compensation Legislation," demands a place because of its inherent interest, the information it presents of the place of the movement for industrial safety in our social and economic evolution, and its suitability as a means of encouraging those attitudes and ideals that are essential for the safety of the individual worker and the future progress of the movement for industrial safety.

The complete curriculum, based largely on the experiences of the school, but including such other material as was obviously necessary for the reasons already enumerated, follows. Only the major topics are here presented.

Curriculum of Instruction in Accident Prevention

(Academic Department)

History of the Movement for Industrial Safety

I. Industrial conditions prior to the rise of the safety movement.
II. Progress of industrial accident prevention in Europe.
III. Industrial accidents and the Common Law.
IV. Compensation principle applied to federal employees in certain classes, 1908.
V. Organization of the American Museum of Safety.
VI. Safety activities initiated by the United States Steel Corporation.
VII. Organization of the National Safety Council.
VIII. Existing conditions.

Benefits of Industrial Accident Prevention

I. Reasons for carrying on the work.
II. Benefits derived by
    A. Employers
    B. Workers
    C. Nation

General Means for the Prevention of Industrial Accidents

I. Estimated accident prevention possibilities
    A. Chief causes of accidents
    B. Examples of successful safety work
    C. The school's accident prevention experience
II. Safeguarding
    A. State regulations
    B. School conditions compared to state standards
III. Building construction.
IV. Industrial housekeeping.
V. Education.

Topics of General Value

I. Shop Lighting
    A. Relation of poor lighting to accident frequency.
    B. Requirements of a satisfactory natural lighting system.
    C. Arrangement of benches and machines.
    D. Window glass.
    E. Requirements of an artificial lighting system.
    F. Lighting conditions about the school.
II. Ventilation
    A. Causes that vitiate the air of a shop.
    B. Effects of excess carbon-dioxide.

C. Effects of increases in temperature.
D. Optimum temperatures for
1. Strenuous physical work.
2. Average work.
3. Light work.
E. Relative humidity and health.
F. Means of ventilation.
G. Conditions about the school.
III. Floors and flooring
IV. Fire prevention, and fire extinguishment.

Prevention of Accidents in the Trades Taught in School

I. Auto Repair Department
A. Prevention of hand-tool accidents (general).
B. Prevention of hand-tool accidents (special).
C. Prevention of accidents arising from handling material.
D. Prevention of accidents arising from miscellaneous causes.
E. Prevention of carbon monoxide gas poisoning.
II. Carpentry Department
A. Prevention of hand-tool accidents (general).
B. Prevention of hand-tool accidents (special).
C. Prevention of machine accidents (general).
D. Prevention of machine accidents (special).
E. Prevention of accidents caused by striking against objects.
F. Prevention of accidents arising from handling material.
G. Prevention of accidents arising from miscellaneous causes.
III. Drafting Department
A. Prevention of accidents arising from miscellaneous causes.
IV. Electrical Department
A. Prevention of hand-tool accidents.
B. Prevention of burns and scalds.
C. Prevention of accidents arising from miscellaneous causes.
D. Safe clothing.
V. Machine Shop
A. Prevention of machine accidents (general).
Proper clothing.
Safeguards always kept in place.
B. Prevention of machine accidents (special).
C. Prevention of hand-tool accidents (general).

D. Prevention of hand-tool accidents (special).
E. Prevention of accidents arising from handling materials.
F. Prevention of accidents arising from miscellaneous causes.

First Aid

I. Purposes.
II. First aid and medical attention.
III. Prevention of infection.
IV. Control of bleeding.
V. Shock.
VI. Broken bones.
VII. Dislocations.
VIII. Sprains.
IX. Bruises.
X. Burns.
XI. Eye injuries.
XII. Electric shock.

Coöperating for Industrial Safety

I. Need of coöperation.
II. Possible contributions by the employer.
III. Possible contributions by employees.

Compensation Legislation

I. Relation of accident compensation of accident prevention.
II. European beginnings.
III. Compensation legislation in the United States.
IV. Underlying principles.
V. Advantages.
VI. Provisions.
VII. Results.

Objectives

The academic department, in presenting this course in accident prevention, has four objectives in view, namely:

(1) To equip the apprentice with a body of knowledge on the subject of industrial accident prevention that will in a general way acquaint him with the hazards of industry, but particularly with those of his own trade, so that he can meet every shop experience, in school or in the factory, old or new, recognize its accident possibilities, and be ready and able to forestall them;

(2) To instil in every boy's mind the safety attitude, the conviction that accidents are unnecessary, avoidable, and indicative of undesirable conditions;

(3) To arouse the interest of every boy to so great a degree concerning the theory and practice of accident prevention, that the antagonistic attitude of the majority of old-line shop-men toward his ideas and practices will neither disconcert nor discourage him;

(4) To make every boy a missionary in the crusade against industrial accidents; to send him out after graduation, determined to spread the safety gospel. He should be eager to coöperate with whatever accident prevention measures are used in the place of his employment, or to agitate for the installation of safety devices and the initiation of suitable safety measures if he should find employment where conditions in these respects are derogatory to safety; and to leave such a place of employment if no effort is made toward remedying matters. To the habits of working safety that the shop instructor endeavors to inculcate, the academic department, through this organized course of instruction, endeavors to add the appropriate knowledges, attitudes, and ideals.

Method

The method of instruction, so far as the procedure in the academic classroom is concerned, is much the same as that for the other subjects there presented. The information is presented by means of lectures, readings, and discussions. A textbook that presents industrial safety material in a form and manner suitable for use in a vocational school does not exist. Use was made, however, of two chapters on occupational dangers—the one dealing with accidents, the other with poisons and fumes, in a book on industrial hygiene designed for vocational schools. During the past fifteen years, much has been written by individuals and also under industrial and governmental patronage on this subject; the ground has been covered with scientific precision and thoroughness; but the findings have been expressed in terms suitable for the guidance of the employer, the superintendent, the safety engineer, and others connected with management. These sources were referred to frequently, and from them was gathered much of the material of a general nature, such as the history of the safety movement, indus-

trial lighting, ventilation, and so on, that is presented to the classes in accident prevention.

There is no definite order, moreover, in the presentation of this material. The order of topics in the curriculum is a logical one; the order of presentation depends somewhat upon what is going on in the trade departments. The first month of school is the best time for some instruction to the carpentry department boys on hand-tool safety, for the beginners in that department then become acquainted with the use of hammers, saws, and chisels. This instruction is not a duplicate of what the shop instructor has already presented, but an enlargement upon it. Where the shop instructor of necessity confines himself to a particular case, the academic subjects instructor uses that case as the starting point for a much more general discussion on the safe use and care of that tool. In the case of the hammer, for example, not only is the safe method of starting to drive a nail re-emphasized, but consideration is also given to the advisability for using a small pair of pliers to hold the nail, and to the use of hammers with corrugated striking faces. Similarly, a damp or rainy day early in the school year may be the occasion for discussing the matter of safe stairs and stairways, for on such days the dampness makes footing on the stone stairs uncertain, particularly to those who wear rubbers or rubber heels. Practically the same plan is used for the presentation of all the material comprised within the curriculum, *i.e.*, the starting point is generally what the apprentices know. They are encouraged to observe, to express opinions, to read, to point out possible sources of danger.

But the subject that was most used as a vehicle for added instruction in accident prevention was language. As has already been stated, much of the instruction in accident prevention was in the form of discussions. The advantages and disadvantages of a tool-rest on the small tool grinder in the Machine Department, safety instruction in the shop, hand-tool safety, these are some of the topics that furnished much opportunity for oral discussion. As subjects for written compositions they called forth some sound as well as original thinking, clearly, correctly and convincingly expressed.

The language periods were also used to further the success of the school's accident prevention campaigns, by giving every stu-

dent an opportunity to work along original lines to arouse interest in these campaigns. The chief purpose of the work in language in preparation for a safety campaign was to provide suitable original material for inciting and maintaining interest. The devices used for this purpose were (1) the originating of "Boob" stunts, (2) originating "Safety Sammies," (3) writing safety slogans, and (4) writing safety verse. Examples of the last two:

SAFETY SLOGANS

(Originated by students as a means of furthering safety activities.)

1. Practice safety no matter how safe you feel.—*E. Youngman.*
2. Watch what you are doing and you won't need a doctor to watch you.
   —*E. Fischer.*
3. A live wire may mean a dead man.—*G. Teuscher.*
4. Safety applies to more than a razor.—*C. Kratt.*
5. Safety takes the dents out of accidents.—*G. Teuscher.*
6. Safety first makes life last.—*F. Langdon.*
7. Carelessness is contagious; safety's the cure.—*E. Moburg.*
8. Safety counts; keep adding.—*F. January.*
9. When attention's divided, accidents multiply.—*F. Langdon.*
10. Bits of safety make safety habits.—*D. Hopkins.*

SAMPLES OF SAFETY VERSE

Little Jack Horner
Sat in a corner
Eating bananas and bread;
But he left the peels
Right under his heels,
And now he is home in bed.
—*C. Hamburg.*

Safety wins! I'll say 'tis true,
It doesn't pay to be heedless;
I'd rather think a minute or two
Than suffer a pain that is needless.
—*J. Smith.*

Some tools on a ladder,
A boy beneath;
To move that ladder
Means crepe and wreath.
—*H. Büttel.*

Judging from the number of them handed in voluntarily as a result of work done during out of school time, the writing of safety slogans and of safety verse had great value both as an exercise

in language and as a means of arousing and maintaining interest in accident prevention activities. The high degree of ability and originality displayed by a large percentage of the boys in writing these slogans and verses is surprising and even impressive.

Safety Committees

Accident prevention instruction, even as conducted in the classroom, should do much more than merely transmit information or establish a favorable interest; it should also encourage the formation of safe working habits and an emotional attitude such that safety would be an ideal as well as a habit. Our aim was to provide instruction that would reduce the apprentice's liability to mishap not only in the school, but also during his entire career in the industry for which he had been trained. This aim could best be attained by affording each apprentice before he graduated an opportunity to participate fully in the school's efforts at accident prevention. This transition from the acquisition of knowledge to the appropriate activity was effected by the organization of departmental safety committees.

Such industries as are abreast of the times in their efforts to prevent accidents among their personnel consider the shop safety committees as a most potent factor in this work. Industrial casualty insurance carriers think so highly of them that they have set definite standards for their organization and function. The school's safety committees, even though composed of adolescent school boys, have also come to be considered as the most vital element in the school's accident prevention work. They have outgrown the purpose for which they were created, namely: a device to add somewhat to the interest of the safety instruction presented in the classroom and to make possible the imparting of safety information to a specially selected small group, not only by the regular classroom method, but also by the laboratory method. These committees have come to take an active constructive part in the school's safety work. Here are some of their accomplishments:

(1) By insisting that those boys who are receiving treatment for an injury report every morning as long as necessary for examination and further treatment, they have enabled the students to suffer 358 mishaps without a single case of infection developing.

(2) In a school in which the instructors make every effort to keep tools and equipment in the best condition and to provide every standard mechanical device for the protection of the student-apprentices, they have made the following suggestions for further increasing safety:

a. That the paper cutter in the drafting room be equipped with a safeguard;
b. That the glass in the swinging doors of the various classrooms and halls be covered with a wood or metal grating;
c. That two sets of exposed gears, discovered on some machine department equipment, be properly guarded;
d. That the practice of tool-room boys in one department of reissuing screws that had been used so frequently that the slots were too badly worn to afford a bearing for the tip of the screwdriver, be discontinued;
e. That the two wooden doors at the school's main entrance be appropriately marked "in" and "out," or that wired glass panels be set in them;
f. That several weak places in the gymnasium floor be repaired;
g. That all hand-rails on the stairways that had become warped or loose be repaired and reset.

This list is not pretentious; neither is it exhaustive. But it is amply indicative of the fact that, as an educational device, those committees are serving their purpose; that in regard to shop accidents, their causes, and the means of prevention, the boys who have served on these committees are well-informed; that to them, accident prevention is not only a practice, but also an ideal. These ex-committee members are not fated for industry's human scrap-heap; they have grasped the fact that shop and working conditions can be made safe.

Accident Prevention Campaigns

The accident prevention committees also take a leading part in one other highly important phase of the academic department's educational efforts against accident—its accident prevention campaigns, or drives. In these safety campaigns every member of the school actively participates. The purpose of these drives when first introduced was the same as obtained in the industries, to pro-

duce a decided reduction in the frequency of accidents during the period devoted to it. As now conducted, and the same policy has been in vogue since the fall of 1922, these safety campaigns have become an integral part of the system of accident prevention instruction. A safety campaign is now conducted every other month and that month becomes a period of intensified instruction and effort to prevent mishaps. To so great an extent has the safety campaign become an invaluable device for motivating accident prevention instruction, that the school in reality conducts an all-year-round drive for safety with regularly recurring periods for checking up on the effectiveness of this instruction and for refreshing interest and enthusiasm. It is to this latter task that the attention and the schemes of the accident prevention committees, at the meetings preceding the opening of a safety drive, are especially directed.

The school and its students have long since come to recognize that the real value of an accident prevention campaign is that of arousing and maintaining a more active interest in all accident prevention instruction, and of assuring practices conducive to safety. That task of devising means of arousing fresh interest and enthusiasm is presented to the group meeting of the committees as the real challenge of their ability and understanding of the situation. The boys know that, generally speaking, their means of arousing enthusiastic interests, and so of procuring a keener attention to accident prevention instruction and practices, are limited to those devices that have already been used over and over; and so they devote themselves to devising new uses of these instruments of instruction and publicity. The following methods can be brought to the task: (1) the columns of the school's two publications, a daily page, the *News Bulletin*, and a bi-monthly magazine, *The Student Worker;* (2) bulletins, as those issued by the National Safety Council and the Travelers Insurance Company and our own 'home-made' affairs including the "Boob Stunt" and "Safety Sammy" cards; and (3) classroom activities. The plans devised to get these devices to present their messages in new and forceful ways have often been a revelation of the ingenuity of these boys and of their understanding of the psychology of their fellows.

The devices of the Accident Prevention Committees for getting the maximal benefit out of the school's two publications, the *Student*

Worker and the *Daily News Bulletin,* have been characterized by an astonishing cleverness.

The material included in the *Hygiene* and *Safety* section of the *Student Worker,* a mimeographed magazine, is such as is appropriate to its bimonthly appearance. The editorials are spontaneous reactions to actual school conditions. Practically the only news item generally included is a report of the accident frequency of the preceding period or of the degree of success of a safety campaign. The rest of the section generally consists of the pick of the safety slogans or safety verse submitted during the month preceding publication.

The committees attended closely also to the make-up of the *Daily News Bulletin* during the conduct of a safety drive. During such a period, the *Bulletin,* through the skill of the boys of the Drafting Department in handling pen and ink, and through their efforts with a hektographing outfit, blazes forth with double-column headlines, challenging illustrations, cartoons, slogans, scoring devices, all aimed to catch the eye and evoke a thought. A new safety verse and an original slogan appear in each issue.

Results

Space forbids altogether a qualitative evaluation of the results of teaching safety as a separate academic subject, and makes necessary a most summary quantitative evaluation. The following figures present the school's annual accident frequency from September 1919 to June 1924, inclusive:

School Year	1919–20	1920–21	1921–22	1922–23	1923–24
Accident Frequency	55	62	91	51	99

It will be remembered that the gathering of information upon which the construction of the curriculum for accident prevention instruction for the academic department of the school was based, was going on during the school years beginning with September 1919 and terminating with June 1922. This curriculum was put into effect at the beginning of the succeeding school year. The record of 51 accidents for the school year 1922-23, the lowest in the history of the school, appears to be a most flattering indication of the success of the task of curriculum construction and of the method of safety instruction. The figures for 1923-24, which show 99 mishaps,

eight more than had ever before been scored against the school, would appear at first glance to wipe out whatever favorable deduction might have been drawn from the 1922-1923 record. But closer analysis of the statistics that give the school's annual accident experience shows that this unfavorable condition is more apparent than real.

The task of erecting and wiring a two story structure built to house the school's increased enrollment was begun in March 1924 and presented added hazards. The risks, such as handling heavy material, erecting and working on the scaffolding and the framework of the building, and the numerous other dangers inherent in building construction and wiring during the process of construction, were all made more hazardous by the fact that the building had to be practically complete by the end of June. The apprentices, furthermore, could not work steadily on the building, for both inclement weather and the program of related academic work borrowed substantially from their working day. The time element entered therefore to increase the hazards of a building job that would, by its nature, have taxed journeymen to complete without meeting with a lost-time accident. This feat, of avoiding a single lost-time accident, the boys concerned did accomplish. But the occurrence of those slight injuries, which, as had been explained, it is the school's policy, as a matter of accident prevention instruction, to score as accidents, increased substantially during the period from March to June. The following table, which lists by department and month, the occurrence of accidents during the 1923-1924 school year, serves to reveal the effect of the building and wiring operations upon the two departments engaged therein, the Carpentry and the Electrical:

	Auto Repair	Carpentry	Drafting	Electrical	Machine	Totals
September	0	9	0	0	0	9
October	1	4	1	1	0	7
November	1	2	0	1	0	4
December	3	3	0	0	0	6
January	6	4	1	1	0	12
Totals	11	22	2	3	0	38
February	3	4	0	1	0	8
March	2	8	0	3	0	13
April	3	5	0	7	0	15
May	1	9	0	8	0	18
June	2	4	1	0	0	7
Totals	11	30	1	19	0	61

A consideration of the school's accident frequency record for the first five months of every school year since September, 1919, whereby this element of unusual hazard is eliminated, yields figures that are more truly comparable.

The figures giving the accident frequency for the first five months of every school year, September to December, inclusive, are as follows:

School Year	1919–20	1920–21	1921–22	1922–23	1923–24
Accident Frequency	29	41	48	41	38

These figures do permit the conclusion that the instruction in accident prevention as now being given in the academic department of the school does function for greater safety.

This discussion of the school's annual accident frequency may be continued by a consideration of the school's 'lost-time accident frequency.'

LOST-TIME ACCIDENTS
September 1919—June 1924

Year	*Cause*	*Treatment*	*Time Lost*
1919–20	Scuffling	Doctor	½ day
	Unauthorized work	First aid	2 days
	Grinder	Doctor	13 days
	Trimmer	Hospital	17 days
	Material	First aid	½ day
	Scuffling	First aid	1 day
	Unauthorized work	First aid	2 days
	Jointer	Hospital	7 days
	Thrown Tool	First aid	1 day
1920–21	Power saw	Hospital	20 days
	Material	Hospital	2 days
	Scuffling	First aid	1 day
1921–22	Hot water	First aid	20 days
	Chisel	First aid	2 days
1922–23	Hack saw	Doctor	½ day
1923-24	Material	First aid	4 days

The "time-lost" record in the table indicates the number of days during which the apprentice injured was unable to continue with the routine work of his department. It does not indicate the number of days absent from school. A large percentage of these mishaps did in all probability compel a day or so of absence from school; a longer period was in all likelihood spent by the victim in the department's school crib.

Since the instruction in safety in the school shops has undergone no change since the founding of the school, except in so far as it reflects the changes in accident prevention instruction given in the academic classroom, it follows that the credit for the sharp reduction in the occurrence of the comparatively serious injuries must go in a large measure to the safety instruction given in the classroom.

Conclusion

To a disproportionate degree, perhaps, this chapter has dealt with the experiences of a single vocational industrial school in teaching accident prevention. This procedure has been adopted for two reasons, namely: that this school is the only one, so far as the writer knows, that has taught safety as a separate academic subject, and that its experiments and experiences may serve as a point of departure for such vocational schools as may contemplate giving to safety instruction the attention it merits. To the latter end he has outlined what seems the proper method for the construction of a curriculum and a suitable method of instruction. The benefits of safety instruction based on such a curriculum, and of a bi-partite method of instruction, which divided the teaching of safety between the shop instructor and the related academic subjects instructor, have been presented. This plan of safety instruction has benefited the apprentices at our school in ways other than reducing their chances of injury. It has provided them, we believe, with the information, skill, attitudes, and ideals that will go far toward keeping them free from preventable injuries during their entire career in the trades for which they have prepared themselves.

CHAPTER XI

THE PRESENT STATUS OF SAFETY EDUCATION IN TEACHER TRAINING INSTITUTIONS

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Introduction

The purpose of this chapter of the yearbook is (1) to outline briefly the present status of safety education in the curricula of the teacher training institutions of the country, that is, to note the nature and amount of emphasis upon the subject; and (2) to indicate the place it should occupy in the view of the growing prevalence of industrial and public hazards throughout the country.

Part I

Present Status of Education in Accident Prevention

In order to present this discussion adequately, it is necessary to indicate briefly the development of accidents as a phase of American life. While industrial accidents have been common since the early stages of the industrial revolution, public hazards have appeared in the present serious form only in the late nineteenth and in the twentieth century. They are coincident with the development of the modern means of traffic and the congested conditions of public highways and city streets since the appearance of railroads, the modern electric street cars and the automobile, the universal use of gas, and the extensive use of electricity for light and power. It is, therefore, with public accidents that we are primarily concerned.

The control of industrial accidents has been a special problem of industry and, generally speaking, has received little attention from the public or from educators. To be sure, a large part of the children attending the public elementary schools sooner or later find their way into the industries of the country as laborers. However, the time elapsing between the close of the elementary-school period and entrance into industry as laborers is so long that instruction in the causes and means of prevention of accidents in industries has

little or no place in the elementary schools. In so far as education in the prevention of industrial accidents is concerned, the problem is one for the industrial schools, for the technical schools, and for special instruction of the industrial laborers, foremen, superintendents and managers of the industries of the country. This instruction in the industries has been well taken care of by the more enlightened industrial managers and accident frequency has been greatly reduced in industry as a whole, as has been shown in the earlier chapters of this volume. The problem with which educators have become concerned and the condition which has aroused the interest and concern of various communities has been that of public accidents, or the hazards which cause accidents in public buildings, in the homes, upon the city streets, and upon the public highways. It is, therefore, to education in the prevention of this type of accidents that we shall give primary attention in this discussion.

Our problem, therefore, has been (1) to determine to what extent the teacher training institutions of the country have sought to meet the growing menace of public accidents by introducing into their curricula material relating to their causation and prevention and (2) to discover by what method this has been done.

The Questionnaire

We gathered our data by means of a questionnaire of simple form, but designed to call forth reasonably ample replies. The questionnaire, which was sent to some 250 institutions, is as follows:

1. Have you a course in your curriculum for teachers in Education in Accident Prevention?
2. What textbook or books do you use?
3. If you do not have a special course, do you deal with the topic in other courses? If so, in what courses?
4. List the topics treated.
5. If you do not have a course, do you contemplate the introduction of one? Explain in full.
6. Do you have instruction in accident prevention in your observation or experimental school?
7. If so, indicate whether you treat accident prevention as a subject or introduce accident material into the various subjects of the curriculum?
8. Is opportunity given to the teachers in training for observation, practice, and participation in lessons in accident prevention?
9. Remarks.

Replies to Questionnaire

In all, we received 117 replies, from privately endowed universities, from state universities, and from normal schools and teachers colleges. The following compilation shows the source from which the replies were received:

1. Schools of Education in Privately Endowed Universities..... 8
2. Schools of Education in State Universities..... 22
3. State Normal Schools and State Teachers Colleges..... 87

Replies were received from 42 states: 60 came from states west of the Mississippi River, 67 from states east of the Mississippi River, and 26 from New York, Pennsylvania, and Illinois. This distribution indicates that replies come generally from those sections where public accidents are most frequent.

A very large percent of the universities, but less than fifty percent of the normal schools and teachers colleges, answered the inquiry. It is fair to assume that little is done in those institutions that sent no reply, and that this summary accordingly represents the situation in its most favorable aspect. It is desirable to treat each of the questions separately, in order to present an exact picture of the situation.

Question 1

In answer to the first question: "Have you a course in your curriculum in Education in Accident Prevention"? replies were: 'yes,' 6; 'no,' 111.

Of the six institutions that answered in the affirmative, two are universities, New York University and the University of Colorado, one a teachers college, Peabody; and three state normal schools, namely, LaCrosse and Platteville, Wisconsin, and Oswego, New York. The replies of the University of Colorado and Peabody College indicated that the course in each case was given as a part of the course in "First Aid," and there is no indication that more emphasis was given to accident prevention in these institutions than was given in those other institutions which answered in the negative. LaCrosse and Platteville each indicated that the course was given as a part of a course in hygiene or physical education. It appears that definite instruction is given in accident prevention in these institutions. Oswego follows the same practice in having a course entitled "Methods of Teaching Hygiene and Accident Pre-

vention." The description of the course is: "This course treats the subject from the standpoint of personal hygiene and the prevention of accidents in the shops and ordinary walks of life. The topics developed include: nervous disorders and their prevention, diet, narcotics, fatigue, posture, care of the eyes, personal hygiene, proper care and ventilation of the room, infectious diseases, and methods of safeguarding machines." The remarks of the director of the industrial teacher training department at Oswego indicate that accident prevention is regarded as a fundamental part of the curriculum. He says: "All our unit lesson sheets treat this topic." This instruction, however, relates mainly to industrial accidents. The practice at New York University will be given fuller discussion in Part II.

This means that four out of the 117 institutions replying give either a course or part of a course to the discussion of the subject matter and method of accident prevention. The remainder of this summary, therefore, relates to the practice of the 113 institutions which do not have a specific course in the subject.

Question 2

The second question related to the textbooks used. The object of this question was to determine more definitely the extent and character of the emphasis placed upon the topic as the material used in instruction might indicate that emphasis. In addition, in those institutions which deal with the topic in an incidental way through the attention given to it in the more recent texts in physiology, hygiene, and health, the following books were mentioned: *Education in Accident Prevention,* by Payne and *Health and Safety in the New Curriculum,* by Payne and Schroeder; pamphlets prepared by the national, state, and local safety councils; the *American Red Cross First-Aid Manual,* or a combination of these texts and materials. Obviously, those institutions using the Red Cross Manual emphasize first aid, rather than accidents and their prevention.

Question 3

The answers to the third question: "If you do not have a special course, do you deal with the topic in other courses? If so, in what courses?" brought forth a variety of replies and indicated no uniformity of practice. These replies are summarized as follows:

Hygiene	18
Physical Education	12
Civics	11
Health	9
First Aid	8
Incidentally in several courses	6
Social and Community Problems	6
School Hygiene	5
Physiology	4
Public Health Methods	4
Education	3
Assembly	3
Preventive Medicine	2
Citizenship	2
Teacher Training	2
Special Methods	2

Each of the following was mentioned once: curriculum, mental hygiene, course for firemen, observation, reading, industrial arts, domestic science, art, current events, child welfare, rural sociology, efficiency, conference, English, accident prevention, home nursing, and kindergarten-primary education.

Question 4

In order that we might visualize more adequately the nature of the work in accident prevention, we asked in Question 4 that the particular topic relating to accidents included in the various courses of the curriculum be listed. Summarized according to the number of times mentioned, the following list of topics is the result:

Accident Prevention	9
Fire Prevention	8
First Aid	7
Hygiene	5
Safety	4
Street Crossing	4
Swimming	3
Physical Health	3
Industrial Accidents	2
Boating	2
Physical Education	2
Course for Firemen	2
Playground	2
Traffic Regulation	2
Accident Statistics	2

Each of the following topics was mentioned once: camping, picnics, gas explosions, sociology, curriculum, civics, mental health, travel, fears, respect for laws, community workers, project method, railroad crossing, rules and regulations, preventive need, corrective exercise, methods, farm injuries, the work of state governments,

gymnasium, auto and car accidents, hopping cars, live wires, health habit training, and muscular coördination.

The request for the listing of topics referred only to those institutions which did not have a special course in accident prevention, so that the summary represents the topics discussed in the 113 institutions having no specific course in accident prevention. This summary is illuminating: it shows (1) that the teacher training institutions attach little importance to accident prevention; (2) that the character of emphasis is determined by no principle; and (3) that there is no systematic effort to develop among teachers in preparation, either the seriousness of the accident situation or the consciousness of their problem in relation to accidents.

Since the replies represent the institutions that have given some attention to the subject, we may assume that universities, colleges, and normal schools have not on the whole seriously considered the problem of accident prevention.

Question 5

We attempted further to discover the attitude of those dealing with the problem of teacher training by asking whether they contemplated the introduction of a course in accident prevention. Fifty-six answered "No;" fifty-two gave no answer; two indicated that the topic belonged in civics, two in first aid; three were uncertain; one thought that there were too many such courses now, and one expects to introduce the course later. This summary confirms the conclusion that normal schools, teachers colleges, and schools of education have not so far given serious attention to the problem of safety education or, after consideration, have decided it was not of enough significance to warrant a place in the curriculum.

Apparently, the major problem of those in authority in the institutions training teachers is that of developing more adequate methods of teaching the conventional subject matter and so serious a social situation as loss of life from accidents is felt to be of only incidental concern to teachers, if important at all.

Question 6

The answers to Question 6, which related to the inclusion of instruction in accident prevention in the training school, brought

forth more encouraging results. Forty-seven answered "Yes;" twenty-seven answered "No;" twenty answered that the instruction was incidental; twenty-six did not answer. Four indicated that they had no experimental school.

Question 7

This question was designed to determine whether accident prevention was regarded as a subject, such as reading, arithmetic, hygiene, etc., or as an objective of education and therefore a feature of all instruction, as well as a matter of method and of school organization. One indicated that it was taught as a subject; three indicated that it was taught both as a subject and incidentally; forty-eight indicated that accident prevention was regarded as an objective of the curriculum and introduced in the various subjects of the curriculum; two replied that no attention was given to the topic at all; sixty-three did not answer.

Question 8

This question sought to discover whether opportunity was given for observation, practice, or participation in lessons in accident prevention in the training schools or public schools. Thirty-five answered in the affirmative, twenty-nine in the negative; ten replied that such observation, participation, or practice was incidental; forty-three did not reply.

The reporters for thirty-two institutions answering the questionnaire took the advantage of the opportunity given for remarks to indicate the general position of the institution upon this question. Leaving the comments of New York University for later discussion, the following summary is highly interesting:

Remarks or Comments to Question 8

Peabody College, Nashville, Tenn.
"Have about 100 students each year qualifying for Red Cross Certificates —all teachers."

State Normal School, LaCrosse, Wisconsin
"First Aid and Safety First are correlated."

State Normal School, Plattsville, Wisconsin
"Much of this work is dramatized."

State Normal School, Oswego, N. Y.
"All our unit lesson sheets treat this Topic."

University of New Hampshire, Durham, N. H.

"Our courses are designed to train teachers in secondary schools only, and with our limited staff, we have not been able to offer courses which would deal intimately with this problem."

University of Texas, Austin, Tex.

"The only instruction of this sort ever given here, so far as I know, has been as an incidental part of courses for Boy and Girl Scout Leaders in summer sessions."

Women's College, University of Delaware, Newark, Delaware

"We are now at work planning for a regular treatment of this subject in the general methods courses and during the participation and practice periods. Formerly treated only incidentally."

University of South Dakota, Vermillion, S. D.

"The tendency to add new courses to our curriculum has already gone too far, but I do think the subject is worthy of some consideration and attention."

University of Michigan, Ann Arbor, Mich.

"Experimental school just one year old. May develop later the courses under discussion."

School of Education, University of Chicago, Chicago, Ill.

"The curriculum, we think, should not be made up of special topics. Courses in civics should be organized on a comprehensive scale."

Teachers College, Columbia University, New York, N. Y.

"No teaching in this field at all."

State Normal School, Monmouth, Oregon

"We have been stressing accident prevention for two years."

State Teachers College, Bemidju, Minnesota

"This kind of work is desirable, but there is doubt if it should require full time as a formal course."

State Normal School, Fitchburg, Mass.

"The local Red Cross unit is giving instruction to school children in first aid, swimming, etc. Boy Scouts also in first aid."

State Teachers College, Kearney, Nebraska

"We expect to include this work in our affiliated schools this fall and have sent for Dr. Payne's books for use."

Western Tennessee State Teachers College, Normal, Tenn.

"Organized material is scare. We would be glad to do more along this line if material organized for teaching is available."

State Normal College, Dillon, Mont.

"This varies greatly according to instructor. During each year we have half a dozen in charge of this work."

State Normal School, Oshkosh, Wis.

"Our drawing department coöperates in posters, etc. English classes in composition; nurses give talks. Pupils compile lists of typical local accidents, ways of prevention, and first aid."

State Normal School, West Liberty, W. Va.

"Health education is covered thoroughly and accident prevention is considered as a part of this instruction."

State Teachers College, Winona, Minnesota

"We have a school nurse and courses in physical education whereby much is done, though not in formal courses."

State Normal School, Lewiston, Idaho

"Since our course of study is prescribed by the State Board of Education; it is not known here if such a course is contemplated."

State Normal School, Fredonia, N. Y.

"This state has so many laws now about teaching fire prevention, humaneness, narcotics, alcoholic drinks, and the like, that it is actually impossible to obey the laws."

Northern Arizona Teachers College, Flagstaff, Ariz.

"I shall be interested in a statement from you as to what more can be done than we are doing to prevent accidents in our school."

State Normal School, Cheney, Pa.

"Our heavy program precludes a separate course in this field. I think, however, that it can have due emphasis in connection with other courses."

State Teachers College, San Francisco, Cal.

"The policy in the state of California (as evidenced by the last state legislature) is to reduce, rather than to increase the number of subjects in the state curriculum."

State Normal School, California, Pa.

"Pennsylvania State Normal School curricula are uniform in general."

State Normal School, North Adams, Mass.

"The state department of education has recommended definite teaching, but has not specified that it should be a separate course."

State Normal School, West Chester, Pa.

"It seems to me accident prevention is chiefly a matter of keeping in the right state of mind, as conditions change and new ones constantly have to be met."

State College, Concord, West Virginia

"Am greatly interested. Would like information about definite work."

State Normal School, Buffalo, N. Y.

"There are already too many subjects in the elementary curriculum."

State Normal School, Shippensburg, Pa.

"Until very recently, our plan was to treat the accident after it occurred; to give 'first aid' training. Now we are teaching 'safety first' principles in the hope of preventing accidents."

State Teachers College, Cedar Falls, Iowa

"Iowa has general laws on auto speed, etc. Municipalities have additional laws governing the auto. 'Stop, Look, and Listen' signs everywhere at railroad crossings. As long as auto drivers have right of way over foot passengers, etc., teaching children would be useless. Teaching about accidents does not go far enough to protect the public. Killing people

by accidents is not necessarily a crime. The Iowa law on making factories, railways, etc., pay for injuries is the best that can be done for protection."

These comments of the reporters for the thirty-one institutions indicate that the faculties of several of these institutions recognize the problem of accident prevention as a serious one and that they are striving actively for a solution.

Emphasis in Public Schools

It is interesting and instructive at this point to note the practice of the public schools of the country and to compare their practice with the institutions that are training teachers for the public schools. A questionnaire was sent out by the writer as Chairman of the Education Section of the National Safety Council in 1923. The questionnaire was sent to the cities of the United States with a population of more than ten thousand. Two-hundred ninety replies were returned in time to be included in the report.[1] Summarized, they are as follows:

I. Schools with safety instruction.	
a. Introduced as a part of the curriculum	143
b. As a special subject	34
c. Both as a special subject and as a part of curriculum	38
d. Incidental	51
Total	266
II. Schools without safety Instruction	19
III. Reply without information on this point	5
Total, all schools	290

The statement "Introduced as a part of the curriculum" was explained to mean that accident prevention was regarded as an objective of the whole curriculum and each subject and activity should make its appropriate contribution to the realization of the objective. That is, safety should be taught through language, civics, etc.

The interest thus manifested by the superintendents in accident prevention and the extent to which they have already incorporated instruction in the curriculum, indicates that they are far in advance of the institutions that are training teachers, in recognizing the

[1] See *We and Our Health,* Book IV, by Payne and McCarthy, pp. 144-145.

need of instruction in accident prevention as a fundamental objective of the curriculum. The comparison of the result of these two questionnaires, together with the expression on the part of a large number of superintendents that new teachers are not sufficiently conscious of the accident situation as a social problem and are unable adequately to perform the requirements of the curriculum, indicates that educational institutions responsible for the training of teachers have not fully faced their responsibilities with reference to the accident situation in the United States.

Part II

Adequate Emphasis on Safety Education

While a summary of the present status of the position of accident prevention is important, in fact, essential, at the present time, perhaps what is more important is the presentation of a program for teacher training institutions of the country. An adequate program cannot be presented without first entering into a full and adequate discussion of the whole subject. I do not wish, therefore, to present even a tentative program, but rather to outline the history and to give the present status of the particular program that was developed at the Harris Teachers College, and later incorporated and further developed at New York University, as an indication of what is being attempted and as a basis for further discussion and adjustment. This procedure appears to be justified, since New York University has presented a program for teachers, and since other institutions that have subsequently offered courses have in general followed the lead of this institution.

During the war period, when people were generally sensitive to the need of conserving human life, St. Louis faced the problem of reducing accidents through school instruction. The program of education in accident prevention was worked out experimentally in the experimental school of the Harris Teachers College. The results of the program in this school were so favorable, both from the point of view of reducing accidents and of increasing interest in school work, that it was put into operation throughout the city. A statement of the reduction of accidents from school instruction need not be repeated here, inasmuch as these facts have been widely distributed and are generally known.[2] The point of this history is

[2] See Bulletin 32, 1922, United States Bureau of Education.

not to indicate the success of the program in reducing accidents, but rather to indicate that there appeared a demand for teachers equipped to teach accident prevention as a regular feature of the elementary-school curriculum. This demand required that the Harris Teachers College offer a course in the subject matter and method of accident prevention.

Consequently, in the spring of 1921 a one-hour per week course for the third-semester students was made a requirement of all teachers in preparation. This course was entitled "The Curriculum," but as a matter of fact emphasized the subject matter and method of health and safety in the elementary-school curriculum and did not deal with other features of the curriculum. The purpose of the course was to make clear that health and safety were objectives of education and that these objectives must be realized through instruction in the various subjects of the curriculum, such as civics, arithmetic, language, history, etc., by the method of instruction, by the character of the school and classroom organization, and by adequate testing of the results of instruction, not in the mastery of subject matter but in changed behaviour that would insure safety and health. Furthermore, this required that the facts of health and safety be so graded and adapted to the needs of the pupils at each stage of their development that these facts could be used for purposes of achieving results desired in habits, knowledges, and attitudes of the children taught. In other words, we sought to discover the nature, causes, social significance of, and means of prevention of accidents and illnesses, and how this knowledge might be made available to the children of the elementary school through the curriculum and become functional in the lives of the children of the school. This course was carried on for three semesters with markedly favorable results.

In the fall of 1922 a course in education in accident prevention was introduced into the curriculum, as an elective course, in the School of Education of New York University. This course was naturally based upon the experience at the Harris Teachers College. In addition to the special course in "Education in Accident Prevention," the topic received proper emphasis in a course in the "Introduction to Educational Sociology" and also in a graduate course entitled "The Sociological Basis of the Curriculum." All

of these courses were offered in the department of educational sociology and have been continued to the present time.

Perhaps a brief statement of the nature of the course in education in accident prevention will be in place. As suggested above, the course is listed in the department of educational sociology and is therefore regarded as one dealing with sociological material treated in its educational bearing. The loss of property and life from accidents is a fact of first sociological importance. Therefore, a study of the history of these losses, their causes, their growth and changes, etc., comprises not merely facts of civics, but sociological data in the strictest sense. Moreover, the classification of these facts for purposes of instruction, the adaptation of them to the psychological nature and to the social needs of the child and the community, is a vital educational matter. In these two aspects we find, we believe, a field for one of the phases of educational sociology.

Therefore, the course in education in accident prevention comprises two parts: namely, first, the selection and organization of accident data for purposes of instruction or for data as social phenomena; and second, the adaptation of the data to the curriculum. The first phase of the course includes an intimate study of the changing social conditions which account for accidents, a study of accidents and their causes, an examination of accidents in relation to the changing social institutions, such as the coroner's court, the traffic policeman, the fire department, the department of public welfare, and finally the group of semi-public agencies and institutions, such as accident insurance companies, compensation laws and agencies, etc. Much of this material is a matter of community civics, but it is more than community civics. It is matter fundamental to a study of social theory and policy. It is sociological material, and since it is sociological material that has primarily an educational bearing, it is appropriate subject matter for educational sociology.

While the accident data themselves are sociological, their method of incorporation into the curriculum also has a social bearing. For that reason, the second part of the course also concerns the educational sociologist. The second part of the course deals with the subject matter in relation to the social behavior of the child, the school method in its social relationship, the social aspect of the school or-

ganization, and the measurement of the social results of instruction, or rather one aspect of each of these, because they are each essential in safety education.

Part III

Program of Safety Education

We have attempted in the first and second parts of this chapter to deal with the present status of safety in teacher training institutions and with the particular courses that have been so far developed for the training of teachers for instruction in accident prevention. We have obviously omitted the discussion of any courses which regard safety as a subject of instruction in the elementary school or which regard it as belonging exclusively to any one subject, such as civics, physical education, or first aid. We have chosen this procedure for several reasons. First, the indication that safety is taught through first aid, civics, or hygiene is itself explanatory and needs no discussion. Second, because of the conviction that accidents can be prevented only by the incorporation of safety instruction into various subjects of the public-school curriculum, into the school and classroom organization, into methods of instruction, and into the measurement of the result of instruction in a fundamental way. Third, because this method conforms to the best educational theory and practice.

In this part of the chapter we wish to indicate what we conceive to be the proper place for instruction in safety in the curricula of teacher training institutions. We shall present this discussion under the following heads: the value of a special course in accident prevention, its incorporation as a phase of the course in educational sociology and the sociological basis of the curriculum, its incorporation into the special-method courses in the various subjects, its presentation through observation and practice teaching, and finally its introduction in all of these forms.

1. The Value of a Special Course in Safety Education

In the early stages of any subject there is value in a special course which will perhaps give excessive emphasis for the purpose of making a permanent place in the curriculum for the topic introduced. No one would contend that the importance of accident

prevention justifies a required course in the subject in normal schools and teachers colleges, although there is sufficient material to make the course in itself profitable. As a matter of fact, we have in New York University now incorporated accident prevention in the course in health education and treat the data as a subordinate part of that course. If institutions were to give as much relative attention to other courses dealing with objectives of the curriculum of equal importance with accident prevention as it would be necessary to a required course, the whole curriculum of the normal school, teachers college, or school of education might be devoted to the consideration of these objectives of the curriculum alone. This would obviously be an undesirable emphasis. When we introduced a separate course into the curriculum of the School of Education of New York University, we made it elective and gave it as a separate course for purposes of emphasis. We feel that the results justified the procedure. We should not advocate this except as an expedient in the beginning to bring the body of data before the students in as emphatic a form as possible. At the same time, the subject matter is rich and varied enough to warrant the emphasis for the purposes indicated.

2. The Incorporation of Subject Matter and Method in a Course in the Sociological Basis of the Curriculum

This plan has its weaknesses, since the instructor can deal only incidentally with the subject matter, and this leaves the student with an understanding of the principles involved in accident prevention, but without adequate data for the effective application of those principles. On the other hand, such a course is adequate to present the principles underlying accident prevention as a phase of the curriculum. This course wholly neglects the special method.

3. Accident Prevention in an Introductory Course in Educational Sociology

In a course in educational sociology, proper, emphasis may rightly be given to the sociological data and their educative significance; no emphasis can properly be given to the discussion of special method or to the details of its place in an educational program.

4. Accident Prevention in Special-Method Courses

The place to deal with the method of accident instruction is logically in the special-method courses, as in the teaching of English, civics, history, arithmetic. Here again, however, the teachers of the special subjects are not themselves sufficiently conscious of the need of safety education, and they are generally unfamiliar with the place and importance of accidents in the social life. The result is that the proper emphasis is not given. Besides, the emphasis is generally placed upon the subject matter with its more immediate objectives and fails to conceive it in relation to the more important concomitant outcomes, that is, safety, health, civic virtues, vocational fitness, and the like. In spite of the practical weakness of depending upon instructors in special methods to give adequate emphasis to accident prevention, the theory of curriculum construction demands that the matter be left to them and other practical means be used to insure proper emphasis.

5. Accident Instruction through Courses in Observation and Practice Teaching

Perhaps the most effective way of all to insure proper emphasis to accidents and their prevention is to operate an adequate program of education in accident prevention in the training, experimental, or observation and practice school. This plan, however, has its defects, in that the student is likely to fail to conceive the place of accident instruction in relation to the whole program of education. They are still without the sociological background essential to the performance of an adequate job. However, this same weakness appears in the whole program of the observation school in relation to teacher training and needs no elaborate discussion here.

6. Combination Plan

Finally, the only adequate method of procedure is to deal with safety as we should deal with health, citizenship, moral fitness, or any other objectives of instruction: namely, give the appropriate emphasis to accident prevention in each of the courses where it logically belongs, with appropriate emphasis upon each. This would require that accident data be adequately emphasized in educational sociology, that the place of these data in the curriculum be discussed

in a curriculum course, that special-method courses emphasize the details of methods, and that a program of accident prevention be put into operation in the training school where student-teachers may have the opportunity to observe its operation and engage in practice teaching. In a word, we should not recommend that this objective of education be dealt with in any different way from that of other objectives, except that greater emphasis may be justified in the beginning because of its newness and because of the general lack of familiarity of students with the importance of accident prevention as a social problem.

CHAPTER XII

TRAINING ENGINEERS IN SAFETY

W. Dean Keefer
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Educating our citizens in accident prevention is an important and necessary undertaking. Many persons are injured or killed every year as a result of their own or another's recklessness. In addition, thousands of people have absolutely no conception of the dangers that exist in our modern industrial and community life. Furthermore, so many people are fatalistic about accidents, thinking of an accident as something that happens to the other fellow but not to themselves. It, therefore, becomes necessary to instruct these people how to prevent injuries, not only to themselves, but also to others.

Elimination of Accident Hazards

Safety education alone, however, will never completely solve the accident problem. There is a second activity—the elimination of accident hazards—which is, and will continue to be, an important factor. Proper headway in accident prevention is utterly impossible unless these two activities are developed simultaneously. They must go hand in hand, as it were; the two are inseparable. For example, it is not sufficient to warn a person in an elevator to stand back from the entrance, nor to instruct the operator to keep his hands away from the square-head cutter when feeding boards or sticks into a wood jointer: in addition, it is necessary to install a gate at the door of the elevator car so interlocked with the hoisting mechanism that the car cannot be moved unless this door is closed; then no one could possibly be caught and injured by projections in the elevator shaftway even though he were to trip and fall forward; also to provide an adjustable cover guard for the jointer cutter and to install a re-designed round-head cutter so the injury hazard will be reduced to a minimum, even though the machinist should neglect to use the adjustable guard or forget instructions and bring his hand too close to the point of operation.

As indicated in these two illustrations, there are two methods of eliminating accident hazards—either by the installation of safeguards, or by what is known as "engineering revision." The term "safeguards" applies to accessory devices, such as elevator gates, jointer guards, enclosures for belts and other revolving and reciprocating machinery, and many other appliances that are not integral parts of the machines that are guarded. "Engineering revision" means the improvement or re-design of machinery, equipment, or processes so as not merely to cover up existing dangers but to eliminate them entirely. Most safeguards serve merely as temporary expedients, awaiting the development of more fundamental means of eliminating accident hazards through the application of engineering revision. The round-head cutter may not totally eliminate the hazard of jointer operation, but its development is an example of progress in engineering revision. A still better example is found in the power press. Some years ago, numerous types of collapsible gates and sweeping devices were installed on power presses to brush aside the operator's hand when the ram descended. These devices have now become more or less obsolete, because improvement in the design of the dies, providing mechanical feeding, has totally eliminated the hazard.

Elimination of Accident Hazards an Engineering Problem

The application of safety education is practically unlimited. Men, women, and children in all walks of life need to be educated to avoid accidents, but preventing accidents through the *elimination* of *accident hazards,* however, is a more complex problem, and only meager results can be expected from the great masses of our citizens. We must look to the engineer for leadership in this work, for with but few exceptions it is he, and he alone, who combines the theoretical knowledge and the practical mechanical knowledge that are both necessary for the maximum of success.

The engineer, himself, must admit that it is he who through the invention of our modern machines and appliances has created the majority of our accident hazards. To whom better, then, could we turn for the correction of these hazards than to their creator?

Even in the installation of so simple a guard as the gate for the car door of an elevator, there are engineering problems that may not

be immediately apparent. There are the questions: of what material should the gate be fabricated; should it extend the whole distance of one side of the car or only part way; should it be made in one piece or more; should it be collapsible or rigid; of wood or of metal; with openings or solid; if with openings, what is the maximum sized openings to permit; how should it be fastened, and how operated, etc.

Then, too, there is the extremely important engineering problem of so designing each safeguard that it will not limit efficient operation or production. It has been demonstrated time after time that such limitation is wholly unnecessary, and that safeguards, if properly designed, installed, and operated, will actually improve operation and increase production through greater efficiency and through a feeling of greater security on the part of the user.

Revision is a problem for the engineer, even more than is safeguarding. It requires technical knowledge, not only of materials and operations, but also of entire processes. It often involves the installation of new equipment, improving and refining existing appliances, and re-designing various processes.

Safety Education in Engineering Colleges

If it is true that much of the success of the safety movement depends upon the intelligent coöperation of the engineer, why is it that so small a percentage of our engineers appreciate their responsibility? Is it because engineers are loath to give attention to a comparatively new idea, or is it because they are not convinced that accident prevention is a humanitarian and economic necessity challenging their ingenuity and creative ability?

No matter what the answer may be, is it not reasonable to expect that this condition can be corrected by education? Not so much by the education of graduate engineers—for, just as safety education in our public schools is essential in securing an enlightened public, is it not necessary to introduce safety instruction in our engineering colleges to secure enlightened engineers? As in public school work, it is not advisable to add safety as an extra course to an already overcrowded curriculum, nor to train and graduate men with degrees of "Safety Engineer." On the other hand, safety can, and should be, included as an integral part of the exist-

ing courses, so that the safety point of view will be impressed upon every student engineer.

Recognizing this need, the Society for the Promotion of Engineering Education, at its annual meeting in 1924, adopted the report of its Committee No. 25, in which these three recommendations were included:

(1) Each engineering college should emphasize the safeguarding of physical apparatus and equipment to conform to standard requirements, both in shops and laboratories, to impress upon the students the safety point of view.

(2) A minimum of two lectures or recitations on accident prevention should be given in industrial engineering and management courses.

(3) The idea of safety should be included in design courses, such as machine design, electrical design, building design and construction, hydraulic design, etc.

Two years ago, the same Society directed a questionnaire to seventy-two colleges. The returns indicated that six institutions give no attention to safety; thirty-seven mention safety casually; twenty-three have a few lectures in connection with other courses; and six feature safety principles and practices in selected courses.

Practical Methods

1. Pennsylvania State College

Pennsylvania State College ranks among the better class of engineering colleges from a safety standpoint. Practically all departments of the School of Engineering have courses of instruction so arranged that students become thoroughly familiar with the fundamentals of safety. In the shops, all machinery has been guarded to comply with the standards of the Department of Labor and Industry of the State of Pennsylvania, and all students are instructed in safe methods of machine operation.

A requirement in the machine design course includes the design of safeguards for dangerous revolving and reciprocating parts, such as belts, pulleys, and gears. Lighting and ventilation are studied in relation to safety in the course in factory lay-out and design. This course includes considerable material on fire protection against both general and special fire hazards.

Students in the course of industrial engineering receive lectures on the fundamentals of accident prevention and personnel management. A portion of this course is conducted in the laboratory and part of the laboratory time is spent in making safety inspections of the shops.

The engineering extension courses have a large enrollment among the executives and workmen in industrial plants throughout the state. One of these courses, on foremen training, consists of eight lectures in pamphlet form, one of which is devoted exclusively to accident prevention.

The first day spent by the students in the electrical engineering laboratories is devoted to a discussion of safety.

Accident prevention work is an integral part of every course in the School of Mines and Metallurgy. In addition, there are two special safety courses, one of which includes first-aid and mine rescue work. The other course, extending over thirty-two class periods, gives ample opportunity for the discussion of safety laws and safety codes, the theory and practice of compensation insurance, the compilation and analysis of accident statistical records, sanitation, health, safety inspection, and insurance rating. Dean E. A. Holbrook, who originated this course, states that thirty-two class periods do not by any means exhaust either the subject or the students' interest.

2. Ohio State University

In the engineering college of Ohio State University safe devices and operating practices are mentioned every time special processes or machines are discussed in classroom work. In all design courses, the students are required to include safeguards and to consider the installation and operation specifications of the devices and machines they are called upon to design. This necessitates a study of operating hazards, shop lay-out, ventilation, lighting, methods of compiling and transporting materials, etc.

3. Carnegie Institute of Technology

A safety committee of faculty members has been organized at the Carnegie Institute of Technology to supervise the accident prevention activities of the institution, to inspect the shops and other

buildings, to make recommendations for improving conditions from a safety standpoint, as well as to specify ways and means of instructing the students in accident prevention. All freshmen classes are given several lectures before they are permitted to start shop work, and safety rules are outlined in detail. The sophomores and upper classmen help the faculty to enforce these rules, so that safety has thus become a part of the discipline that is forced on the freshmen by the older students.

4. University of Illinois

Under the direction of Bruce W. Benedict, Manager of the Shop Laboratories, a "Life and Limb Club" has been organized at the University of Illinois in which student membership is voluntary. The purposes of the club are explained to each new class and an opportunity to join is extended to all. The response has always been hearty and unanimous. The club pledge, administered to each new member, makes a definite impression and undoubtedly has inspired many students to cultivate the safety point of view. The pledge is:

> "I hereby express my desire to become a member of the Life and Limb Club, which has for its object the promotion of safety and welfare of students while they are engaged in the use of equipment in the shop laboratories. As a member of the club I agree to:
>
> 1. Obey the standard shop instructions at all times.
> 2. Make the slogan 'Be Careful' my rule of conduct.
> 3. Think before acting, to avoid injuring myself or others.
> 4. Shun habits of living that dull the sense of caution."

Safety posters are displayed conspicuously throughout the engineering college and the importance of this material is emphasized by safety questions that are frequently included in examinations.

Another novel idea developed by Mr. Benedict requires each shop student to serve as the "safety assistant" for at least an eight-hour period. His duties are:

1. To promote all matters relating to safety of student workmen, and the aims of the Life and Limb Club.
2. To investigate the equipment and methods with special reference to hazards of doing work.
3. To report on unsafe equipment and methods of work.

4. To recommend improved safety appliances and methods.
5. To prepare reports of accidents and injuries received by student workmen.

5. Other Institutions

Other colleges that are doing good work in safety include Columbia University, the University of Minnesota, the State Agricultural College of Colorado, and the University of Cincinnati. In several colleges prominent industrialists and safety engineers are invited to speak to the students about the practical application of safety work in various industries. The students may be called together in general assembly for this purpose, or the speakers may appear at meetings of the student branches of the four founder engineering societies. Engineering students are often encouraged to prepare themes, theses, and special reports on various safety subjects, in the preparation of which they are directed to refer to the series of eighty Safe Practices pamphlets and other publications of the National Safety Council. The Safe Practices pamphlets comprise a veritable encyclopedia on safety which, if added to the engineering college library, fill a definite need as reference material. Trips through neighboring plants are often beneficial in demonstrating to students just how accident prevention activities are organized under actual operating conditions.

Conclusion

The objection is sometimes advanced that many of the methods used to teach safety to student engineers stress too much the preservation of one's own life and limbs. It is not fully realized that the lessons thus learned by these students are remembered and applied after graduation and passed on to others with whom these men are associated. In addition, such work is instrumental in developing the safety point of view in the students' minds that inspires them to apply their technical knowledge for the benefit of others through safeguarding and engineering revision. When the idea of training student engineers in safety is generally adopted and practiced by all engineering colleges, we shall have a corps of technicians capable of rendering a service that will not only be a credit to their profession but will also improve our entire business and community life.

CHAPTER XIII

THE FUNDAMENTAL SIGNIFICANCE OF SAFETY EDUCATION

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This Yearbook undertakes to set forth the present status of safety education, but it is clear that in such a review it is quite as necessary to include the present status of the theory of safety education as it is to chronicle the details of classroom work and of extra-curricular activity.

In fact, the need for such a treatment of principles is possibly even more pressing than for the more immediately practical detail; first, as a basis for deciding whether the subject has educational value; second, because the technique for the teaching of safety is in the making and must for the most part be worked out in the schools themselves, and for this purpose it is particularly necessary to have the guiding influence of a body of principles; and third, because safety must be considered not for itself alone but as typical of the whole array of special subjects, such as health, thrift and citizenship, that are seeking admission—but their admission will require a revision of the curriculum and this revision in turn cannot be carried out properly unless it is based upon a sound philosophy.

Little need be said in this connection about the immediate need for safety education and its practical effect, both direct and indirect, for that has been adequately treated elsewhere in this Yearbook. At least 20,000 children of school age and under are being killed by accidents each year. It is known by actual experience that safety education can save at least half of these. However, these 20,000 deaths represent only about 2 deaths per year out of every 4000 children. The real question, after all, in a world that con-

tains countless maladjustments, is not so much what effect this education will have upon the two children as upon the 3998 who will not be killed, whether we teach safety or not; furthermore, we must go still deeper and inquire, not only whether our teaching will produce a generation better able to cope with the problem of safety, but also whether this type of teaching will produce a generation better fitted to meet life in general. In a world in which there are so many important things to be done, a subject, to find a place in the curriculum, must not only develop knowledge and technique to meet some immediate situation but must also develop insights into the problems of life in general. Fortunately, the two things go together. The development of ability to meet some important and fundamental situation in life usually brings also these deeper insights. To determine whether the study of safety brings these deeper insights is however the real question at issue from an educational point of view.

In what follows, the attempt will be made, first, to go as deeply as possible into the principles that underlie the concept of safety, both as a basis for a study of whether safety teaching should be included in the curriculum and as a basis for further development, and second, to relate this specific subject to the newer education of which it is a type and to show the need for this newer education in the modern world.

In such a discussion safety will seem to have an importance which will be out of proportion to that of other cognate subjects. That these are treated in a comparatively cursory way does not mean, however, that they are of less importance. It means only that the treatment in the present Yearbook must necessarily be in the nature of a sampling and safety naturally comes in for primary attention. In the same way an architect, in drawing the general plan of a building, develops some one part in complete detail as an indication of what may be done throughout.

The statement was made that safety is not only typical, but also, in its broadest aspect, inclusive of other similar subjects. In a sense, safety from accidents may be considered to be a part of health, but in a still deeper sense health is a part of safety. This is evident when we realize that the thrift movement involves the *saving* of money, that the health movement has for its object

the *saving* of life and the *conservation* of health and that character-building, ethics, and religion all involve the *conservation* of certain elements of character and personality—in fact, safety has been a particularly dominant conception in the field of religion.

In the "safety movement," so-called, by which is meant the field of physical safety, much of the work must doubtless be oriented by reference to more detailed and more specific objectives, and yet the general concept of safety must permeate and color the development throughout if it is to have any large and permanent educational value. These larger implications may never, or seldom, consciously and explicitly come to the surface and yet their influence will after all be dominant.

It is essential therefore to discover the innermost nature and implications both of safety in itself and in relation to present educational ideals. The fact that the subject of the Yearbook takes us not only into a new field but also into the more basic parts of that field may be made the occasion, not only for not attempting to use the more ordinary educational terminology and lines of approach, but even for a conscious effort to go farther back into life itself for orientation.

To 'save,' in its fundamental sense is to keep and to conserve, and safety is the condition that makes this possible. The direct opposite of saving is wasting and destroying. Conservation may be applied in any specific field, but, when unqualified, it may be understood to apply to all those conditions that make life desirable and that are in line with progress. In a certain sense, conservation and progress are antithetical; they are, in fact, more properly complementary, for human endeavor in every field is made up of the two elements, first of keeping what one has got, and second, of getting more; or first, of keeping from slipping backward, and second, of going ahead. Safety, then, has a most intimate connection with one of the two great fields of human endeavor and an indirect connection with the other. It is not concerned with progress directly, but it is very much concerned with progress indirectly, inasmuch as no progress can be made except from the firm vantage point of what has been already attained. Safety has arrayed on its side such conservative and conservational forces as law, custom, standardization, and in fact, the bulk of the forces of civilization

itself; progress has arrayed on its side the more creative and forward-looking forces such as invention, science, and art, although on neither side is the division absolute.

While we have in the general concept of conservation a field which is so inclusive as to be embarrassing and which for practical purposes must be restricted, nevertheless an understanding of this fundamental alignment is of the utmost value in a development of the implications of safety.

The implications of safety, however, go far beyond mere conservation, for the question at once arises: What is conservation for? Accumulation and conservation cannot be ends in themselves. Bees store honey to satisfy their lust for activity and acquisitiveness, but these stores form their winter food supply. Not only does the coral animal build as a necessary outlet for his impulses, but what he builds forms a foundation for the life of succeeding generations. Conservation is therefore only a step in a process; it cannot be dissociated from the rest of life. It must find its meaning, not within itself, but in the greater depth and volume and content of life that it brings about.

This necessity is curiously enough implicit in language itself, that great storehouse of the wisdom of the past. For even the *word* "safety" is incomplete by itself; it must be accompanied by a preposition. It demands on the one hand a knowledge of the hazard that is being escaped, had by the use of the preposition "from," in the form "safety from," and on the other hand a knowledge of the field to which safety opens the way, had by the use of the preposition "for," in the form "safety for." These two prepositional forms are exactly correlative and symmetrical and clearly indicate that safety is fundamentally substitutional. Safety, then, is something more than mere conservation; for the conception, when amplified, not only indicates the particular danger which threatened the progress already made, but also indicates the particular line of progress which safety makes possible.

This is most significant from an educational point of view. It at once removes the stigma from safety of being merely negative and inhibitory and reveals it in its true light as a process by which the conditions of life are brought into line with progress.

The concept of liberty requires amplification in the same way, for here again the words "from" and "for" play a similar role.

Freedom is not a static condition of complete unattachedness; it is dynamic: it implies "freedom from" some unworthy condition on the one hand and "freedom for" a better, fuller life on the other. It is safe to say that it is only this dynamic, positive quality in liberty that has made it what it has been, one of the great emotional rallying points of the human race.

In passing, it is interesting to note the curious asymmetry of human psychology which has made it possible for safety to get this negative connotation. The concept "safety from" is made use of a hundred times to once for "safety for." The striking quality of President Wilson's phrase "to make the world safe for democracy" comes not merely from its fine idealism but also because he has exhibited safety in this more unusual and more attractive aspect.

The safety concept therefore is not only a gateway to an appreciation of the whole field of the conservational forces of civilization, but it also introduces us, when we are once inside, to an important and fascinating process—the casting of a certain something out of our lives and the putting in its place of a certain something else.

What is it that we are to get rid of, and what are we to put in its place? We are evidently to get rid of a hazard or danger, for that is very clearly the implication in "safety from." Apparently, the antithesis to 'hazard' is lack of hazard, or 'certainty.' This, however, does not get to the heart of the matter, for it does not satisfy the demands of human psychology by which we are conditioned. In our lives there is, to be sure, a necessity for a degree of certainty. Modern business would be paralyzed if it had to be conducted without any mitigation of the inherent risks of its various undertakings, and the institution of insurance has been developed to give life and business the foundation of reasonable certainty that they require. And yet it is true, even in business, that certainty is required only as a basis for new hazards. Business is essentially founded upon venture, but the new venture cannot be undertaken until the results of the venture that has been already accomplished have been consolidated into a basis from which to make the new advance.

The same thing holds, and perhaps in an even more striking manner, in life itself. Our reactions of to-day are mainly an inheritance from our ancestors. We are sensitized at exactly those

points where life burned most brightly in the past. But evolutionary progress has been essentially a struggle in which the prize of survival went to the most intelligently daring. It was the keen, high-souled, adventurous men and women that succeeded and left descendents. And to-day, as an inheritance, we find the true flavor of life in adventure, not merely physical adventure, but spiritual adventure as well, the going forth to experience in love and religion and art and science, as well as in business and sport, this first-hand, vivid contact with life, a contact that in the nature of things is fraught with danger. Since, then, certainty is only a stepping-stone to new adventure, the real antithesis that is involved in the safety concept is between two types of adventure, rather than between adventure on the one hand and certainty on the other.

The question then is: What adventure is to be avoided and what other adventure is to be put in its place; and what is the criterion by which this choice shall be made? The antithesis doubtless involves on the one hand getting rid of an old adventure that has been experienced and whose fruits have been already won, and on the other, getting rid of an adventure that does not lead anywhere in particular and opening the way to a new adventure that lies in the line of progress, or, a kindred concept, getting rid of an adventure that has no real flavor and substituting an adventure that has interest and thrill. There is no use re-experiencing the dangers of smallpox: we have had that adventure and gone definitely beyond it; there is no point in choosing to have the experience of dodging automobiles in heavy traffic: in the first place, there is not enough at stake, and secondly, there is not enough thrill in it. The antithesis, then, involves a choice between the good adventure and the bad adventure, and the criterion for the good and the bad is nothing more nor less than the criterion that applies to the values in life in general.

At this point, in passing, attention should be called to the fact that the slogan "Safety First" is entirely out of place in the educational field. It has doubtless been useful in the industrial field and in the railroad field, where it seems to have originated. In those fields it is appropriate, for we certainly do not desire either speed or the luxuries of travel if they are to be had at the sacrifice of safety; similarly, under ordinary circumstances there is noth-

ing in the industrial process that should be held higher than the life of the workman.

This slogan is, however, completely inapplicable in the field of education. Taken literally, it would mean that personal safety is under all circumstances the first consideration, to be preferred before the demands of honor, love, bravery, courtesy, or any of the other qualities that make life worth living. The fact that this slogan could have slipped over into use in the schools shows how necessary it is, from an educational point of view, to examine all the implications of the subject. If it were a question of choice, "Adventure First" would be a more fitting slogan in the educational field, or perhaps "Safety for More and Better Adventures." In fact, if we get rid of war and if the standardization and stabilization of life continues, and the movement toward the cities, it is a question whether the problem of adventure may not prove to be one of the most important problems of the world.

Safety leads to another, but cognate conception. An accident, by its very nature, is something that implies the existence of order and purpose, for if everything were equally casual, there would be no way of recognizing an accident as such. Safety, then, is not only the condition that makes it possible to conserve progress already made, but it is also the condition that makes order and purposefulness possible, and these, on the other hand, are the only conditions out of which real progress can flow.

The educational possibilities in this field are very great. Education may be broadly conceived as a process of adjustment whereby an individual learns to adapt himself to the world in which he lives. The completeness of his life is determined by the number and the character of his adaptations. The school, as a restricted portion of his world, is organized in order that the processes of education—namely, the acquisition of knowledge, skills, habits, and attitudes of mind—may be economically carried on. A purpose is assumed, materials and influences are brought together and organized, and the process of individual adaptation goes on. Safety, in its broadest meaning, implies the existence of conditions that will make possible the realization of a purpose. The purpose may be nothing more than the crossing of a street or it may be to lead a full and rich and worthy life. An accident comes, on the other hand, from

an inability to control conditions. Since education is therefore so fundamentally concerned with purpose, a consideration of the conditions that make purposefulness possible must be fundamental in education itself.

These conceptions of order, purposefulness, and progress are at the very heart of organized social life. There are no other conceptions, unless it be that of love itself—the binding force in all social relationships—which are more fundamental. Furthermore, in the problem of safety these concepts are not presented in a static form, but in a form that involves a choice. It is necessary to choose between the good adventure and the bad adventure. This opens the whole field of relative values and leads to considerations that go to the very heart of life. Furthermore, these questions of choice and relative values, while they may be encountered on the lowest plane of physical safety, may be carried with no change in the fundamental manner of approach to as high a plane as we please. For we have not merely personal safety, but the safety of society to consider, and not merely physical safety, but moral safety as well. For instance, the problem of safety in the field of love may be approached by exactly the same method as the problem of physical safety. The adventure of love is evidently a part of the world order, and the real problem of safety in this field is therefore not an inhibition upon love, but a choice between the good love adventure and the bad love adventure. The effective approach to moral safety, quite as much as to physical safety, lies on the positive side.

The safety approach, then, starting as it does with the simplest personal and physical relationships and going on to the most complicated social and moral relationships, can be used throughout the whole gamut of the grades, from the first grade, where the question may be a merely personal one of avoiding burns and bruises, to the high school, where large questions of social and moral safety, such as water supply, drainage, traffic, labor disputes, divorce, and war, may equally well be considered—subjects which are coming to be recognized as definitely belonging in the field of the newer education.

While it is clear that such an approach is possible, it is not clear that it has peculiar merit; in fact, it will undoubtedly en-

counter objection because of its negative character. It is possible, however, that this negative quality, instead of being a weakness, may be its particular source of strength.

It is a curious and significant fact that the avenues of approach to most of the great enterprises of life have been on the negative side. Child training and education in general must have had their origin very largely in inhibitions; at any rate, their course of development has been distinctly from negative to positive. Early religion was largely taboos, and certainly the most important characteristic of modern religion has been its emergence into a field of positive values and positive action. Pathology precedes hygiene; curative medicine precedes preventive medicine; abnormal psychology precedes normal psychology.

There is a reason for this. It is doubtless due to the fact that our early accommodations to a world of powerful and dangerous forces must be largely avoidances. Later, we can adapt these forces to our needs; at first sight, however, they appear as cold, hard, relentless facts, and we shall be fortunate if we succeed in keeping out of their way. A baby in learning to creep, while its first reactions are undoubtedly positive, must nevertheless accommodate itself to the fact of gravitation by not getting into positions where it will fall; it must accommodate itself to the fact of impermeability by not bumping its head against chairs and by not getting its fingers into the cracks of doors; it must accommodate itself to other equally obdurate facts by not touching the fire and by not swallowing pins. When the child is older, he can make use of gravitation for coasting and swinging; he can avoid the shock of impacts by means of springs and cushions; he can handle hot things by the use of holders or tongs; and it is possible even to earn a livelihood by swallowing swords.

The only effective accommodation, however, to these particularly powerful forces when they are first met is *not* to get in their way. So one of the first considerations in driving a car is not to run into other cars, and one of the first considerations in conduct is not to run athwart of others' rights.

It is perfectly true that in a large part of his activities the child finds himself uninhibited. Instinct has already prepared positive adaptations in part of the field, and there are other forces that

are so mild that positive accommodations can be begun at once under the influence of imitation. The argument applies only when the child, or even the adult in fact, has the experience of meeting powerful and dangerous forces for the first time.

One of the defense mechanisms for meeting these situations is fear. Fear has a definite function to perform. It is a danger sign. The sign should come down as soon as we have either rationalized the situation or made other positive adaptations to it. Fear is pathological only when the signs are left standing after the need for the warning has passed or when we continue to live a negative, inhibited life after the positive adaptations could have been made.

There is, however, another reason why the negative approach is the more natural. It is because a pathological condition is easier to understand than a healthy condition. In health the machinery runs so smoothly as to be bewildering. There is no obvious problem and no one approach that is more inviting than another. A pathological condition however is an unbalanced condition. This not only furnishes a particular problem to be solved, but the abnormality actually facilitates study by accentuating the conditions that are to be observed. The best way to understand an automobile is not to watch it while it is running smoothly, but to take it apart when it is out of order.

Apparently, then, we are justified in believing that a tendency for development to take place from negative to positive runs throughout the whole field of human endeavor and that in certain fields the first effective accommodations were made, and are being made, on the negative side.

This should have its influence upon education. It will mean that education, in general, must be an unfolding in which development must proceed definitely in the positive direction. It will mean, furthermore, that in certain fields the child's mind will be found to be particularly sensitized on the negative side. This fact may be made use of for purposes of approach, but steps must be taken immediately to start developments on the positive side; inhibitions and fears must be replaced by positive adaptations.

On the other hand, there are fields in which inhibitions play a small part; in such fields the normal approach is on the positive side. Probably the best approach for the development of most of

a child's normal activities, the activities that go to make up the bulk of our well-established everyday life, is in fact on the positive side. For example, the acquiring of speech is essentially positive and the negative element seems scarcely to enter.

The negative approaches are found in fields where the forces are so powerful that complete solutions have never been found and perhaps never will be found. Fear of the fire is a sign that says, and will always say, more than "Keep away;" it says rather: "Work is going on here, enter at your own risk." The positive approach characterizes those fields in which the race accommodations have been well established. The negative approach, on the other hand, is found in those fields that have never been completely brought under subjugation. These are the fields of the unsolved problem and therefore the fields in which the fires of progress burn most brightly. If education, then, is to be the instrument of progress, it cannot afford to confine itself to fields that are completely positive. We need the challenge of the negative, the incomplete, the unsubdued, the dangerous. Life must in the nature of things have its shortcomings, its failures, its pitfalls, its ironies. Even a golf links must have its hazards: making long, clean drives down the fairway is a joy that comes in the deepest measure only to him who has struggled in the rough!

The safety approach is however not only right from a psychological point of view, but it also has back of it a strong emotional power, owing undoubtedly to the fact that it is right psychologically. Nothing is more impressive in the actual safety teaching in the schools than the way in which it takes hold of the children. All educational paths doubtless lead, more or less directly, to wisdom, but some are very unlovely and uninteresting paths. One would hate for instance to have to *spell* himself into wisdom. Spelling has not had survival value long enough to get an emotional significance. There are to be sure probably more Phi Beta Kappas that can spell than not spell, and probably in the days of Tiglath Pileser making the wrong kind of dents in clay tablets must have carried with it a certain social odium, but certainly nothing has ever happened to the bad speller that was comparable with losing his head, and therefore the heads of all his potential descendents, which was the fate of him who did not learn his safety lesson.

Furthermore, this weeding-out process has been going on from the very beginnings of intelligence. The consequence is that the significance of safety has been established in the innermost parts of our being, namely, in the emotions. In order to motivate the subject of spelling, it has been necessary to draw upon the emotions of competition and the general desire to accomplish and excel, but the study of safety can be motivated directly, for there is in the child a vast storehouse of emotion bearing immediately upon the matter. This is of extreme significance from an educational point of view. It means that the educational process is being carried on, not against resistance, but along the very lines that have been already ploughed deep by the rude forces of life itself.

If this analysis is correct, then the practical uses of the safety approach will extend further than at first appears—for instance, into the field of ethics and character building. To form a character is to bring the elements of a personality into such accord with the forces of life that it will become a positive influence in the direction of right living and progress. But this field is full of powerful and dangerous and untamed forces. We shall be prepared, then, to find one of the approaches to these subjects in the child's mind through a consideration of wrong living. There are plenty of examples of wrong living—war, disease, crime, vice, and poverty, for instance—but these are not the kind of things to bring before very young children. They are too complicated. They require too great a knowledge, not only of facts, but also of the motives that are back of human behavior. An ethics has vitality only if seen against the background of a broad human experience, and this is lacking in the case of a child. The background for a child must largely be supplied out of race experience; some of this is so deep and universal that it has found its way into the emotions, and here we may expect a response that will have its effect upon behavior. The simplest examples of an imperfectly ordered world are physical accidents. To these the child is sensitized by inheritance. If we use this field as a starting point, we shall be merely going on with the teachings of the hard school of life itself. From this by an easy transition we may pass to examples that involve adjustments on as high a plane as we choose. The world to-day is so sadly in need of an ethical approach for children that the possibilities in this field should not be neglected.

Up to this point, safety education has, by deliberate intention, been treated as a thing in itself, in order to bring out its full content and possibilities. Such a treatment, if allowed to stand unamplified, will, however, be misleading, for safety, as already indicated, is only one of a number of similar subjects, such as health and thrift, and the problem of safety education should properly be viewed as part of the larger problem of finding a place in the educational system for this whole range of interests. In fact, the problem of safety education in reality opens up a still broader field, for the demand upon the schools for instruction in such subjects is symptomatic of a general educational unrest, a feeling that by some means or other the work of the schools must be brought to bear more immediately and more effectively upon the practical problems of right living. This unrest seems to point the way to a fundamental revision of the curriculum which, as a matter of fact, will be quite necessary if a place is to be found in the schools for such a large range of new subjects. The exigency of the traffic situation has happened to force safety education into the foreground at this particular time, but this fact should be treated, not as an opportunity for getting it into the curriculum by itself nor even along with the larger field of subjects of which it is a type, but as an occasion for giving consideration to the still larger problem of better adapting education in general to the practical needs of life. Safety education, if it is to find a place in the curriculum, should be permanently allocated only after the problem has been viewed from this larger point of view.

The future of safety education is therefore linked up in the most fundamental way to this larger question of what can be done to bring education in general into closer relationship to the art of living. In what follows the specific subject of safety education will be set aside for the time being and consideration given to this larger problem, safety education coming again to light only when it becomes possible to see how this subject fits into a program for handling the more general question.

In a primitive society a child can adapt himself to life through direct observation and imitation. The mores of the tribes are learned in the process of living; education is therefore definitely a part of life itself. With the growing complexity of life that comes

with civilization it becomes no longer possible to make the necessary adaptations by such direct and immediate methods. The need for deeper insights was first felt in technical fields. The first schools of Europe were schools of law, medicine, and theology and were designed, not for the common people, but for the upper classes. Eventually, however, the whole level of civilization rises to a point at which it is no longer possible for even the common man to adapt himself to the circumstances of his relatively simple life by a direct process of observation and imitation. The ability to read and do simple figuring and the possession of some degree of formal education becomes a necessity among all classes.

With the increasing complexity of the world, this need has become continually greater, until today direct observation and direct adaptation take care of only a small part of our necessities, and very considerable techniques and insights must be acquired by all classes through organized education. The schools have tried giving the common people the kind of education that was traditionally given to the upper classes. A movement to the other extreme has also been made, namely, the establishment of schools for teaching the technique of trades.

Both of these efforts have, however, equally failed to supply what was needed. In the one type of education the children of the common people were given a discipline and technique which did not adapt them to the circumstances of their life, and on the other hand in the trade schools they were given a technique which undoubtedly helped them in the learning of a trade, but that did not supply the insights into life that they needed and that they were conscious of needing. There is therefore today a very general feeling of unrest and uncertainty with regard to the schools; parents feel that the schools, particularly in the upper years, fail to supply what their children need and yet they do not know what is lacking. Nor is the difficulty confined to the common people; in fact, to-day the distinction, from an educational point of view, between the upper classes and the common people has little value.

The difficulty is doubtless largely due to the extremely rapid way in which the world has developed in complexity. The development of science and its practical utilization has been a process of continual subdivision, with an organization of the elements into

multitudinous combinations. This has found its practical application in the very thorough mechanization of life. What a complex of scientific principles are involved in the mechanical construction of an automobile and what a tremendous influence this machine is having upon our lives! This complexity of life from a scientific and mechanical point of view has been accompanied by a corresponding complexity from an organizational point of view in our facilities for exchange, and all these complexities have been reflected in an increased complexity in our governmental requirements. The developments in these various fields have not taken place independently, but have been accompanied by the setting up of a series of relationships that have made modern civilization highly interdependent and sensitive. Instead of a world containing relatively few simple forces acting along well standardized lines, we have, therefore, a modern world of infinite detail, in which the elements are continually appearing in new combinations. Is it any wonder that the problem of education, the bringing of a child up to the point of being able to stand in the front line of progress, is a bewilderingly different problem from what it was even a century ago? Then the problem of education, at least in the United States, was largely one of fitting the child to stand alone and of preparing him to maintain his position in a competitive world. To-day a child must not merely be educated for competition, and for competition in a more complicated and difficult world, but he must also be educated for coöperation, since the increased social complexity has developed a multitude of relationships that previously did not exist.

It is obvious that in such a world as this there will be need for an immense amount of technique and skill and specialized knowledge, not merely on the part of the expert, but on the part of the average man, himself, if he is to have an intelligent and effective grasp of the world. And it is probably the need for this technique and skill and specialized knowledge that is more than anything else the compelling force in our education of today, so far as it is making any effective effort to accommodate itself to the needs of modern life.

There is, however, another requirement that is quite as compelling. In a primitive society a considerable versatility was doubt-

less needed in making adaptations to nature, for the forces of nature are always shaping themselves into new combinations, but the problem of making social adaptations in a primitive and stationary society must have been very simple, and the education of a child for this purpose must have consisted for the most part in learning the mores of the tribe.

To-day, society is so complicated and the conditions of life are changing so rapidly that the mores are in a constant state of flux, and there is no such simple way of getting an education in social relationships. Something more fundamental and flexible is needed, something out of which the child can himself make canons for social conduct, as conditions require. Ideograms are good if the number of ideas does not become too great, but in that case such a system as the Chinese must give way to a more flexible system, such as that that is based on the phonetic alphabet.

The situation in which we find ourselves in the modern world of to-day is comparable to that of being lost in a forest thick with underbrush and fallen trees and ledges of rock. In order to get out, much technique is needed, as well as bush hooks, ropes, and other paraphernalia, but in addition to this there must be a higher type of knowledge, a wisdom that is able to read the compass, to be guided by the stars, and to pick up signs of a trail.

These are the qualities that our modern education lacks. This is evident if we consider what are the outstanding problems of to-day. We are able to bridge the deepest chasms, to tunnel the highest mountains, and to navigate with speed and safety the wildest seas. We have mastered the air and the depths of the ocean. We have annihilated space and time. We can send a whisper around the world. We can break matter into its ultimate parts and reassemble it in new forms, and we can set loose strange and powerful forces. All these things we have done.

The things that we have not done are these: We have not learned how to use and to conserve either our lives or our material resources; we have not found out how to live together nor how to govern ourselves; we have not found a substitute for war; we have not found out how labor and capital can work together effectively; we have not solved the problem of accommodating different races to each other; we have not solved the problem of religious

intolerance; we have not solved the problem of marriage and divorce. In other words, our problems of to-day are not physical problems—we have mastered the physical world—our problems are social.

There is undoubtedly technique required in the solution of every one of these, but it is not because of lack of technique that the problems are not yet solved; it is because we lack, not skill, but insight; not technique, but a right attitude toward life; not knowledge, but wisdom.

After all the fundamental idea in education is simple. It is only the bringing of a child up to the level of civilization of the race itself. What it has taken the race thousands of years to acquire must be acquired by the child in the course of a few years and for this purpose the cruder and slower processes of nature must be replaced by others that can be directed more immediately upon the desired end. That, however, does not alter the objective nor even the method, fundamentally. For, if the purpose of education is to make the child able to take his place in the world and to live a satisfactory life, then education must not only be directed toward the problem of living, but it can not be made really effective except through an actual experience of life itself. Education differs from life in the large mainly in the fact that, in the case of education, experiences extraneous to the purpose in hand can be eliminated and others more to the point put in their place: it is in a sense a re-experiencing of the intellectual development of the race but under peculiarly favorable conditions.

There can be little difference of opinion with regard to these matters when they are stated in such general terms. The differences come to light, and the difficulties as well, when principles are being carried over into action. To get them into action is, however, exactly the problem of education. It is admittedly a difficult problem; otherwise it would long ago have been solved.

In the better adaptation of education to life, one thing is particularly important: a connection must be made with the actual life of the child on the plane on which he is living. The ability of an aeroplane to get into the air depends upon its ability to travel fast enough upon the surface of the earth to transcend this more elementary medium. Similarly with the pupil; he will never be

able to get into the rarified air of scholarship and culture unless education has first carried him along for a certain distance at the level at which he is actually living. He must in his own environment develop an ability to transcend his environment before he can begin to rise above it.

This means specifically that it is the duty of education to form a connection with the life of the child at points at which he is thoroughly vitalized. Education must be adapted to the pupil, not the pupil to education. The discovery of these approaches, these points at which the child's intellectual and emotional life is already kindled, is one of the first problems of education.

Such a connection will show itself in a keenness of interest of approximately the same quality and intensity as his interest in life itself; for if education is to serve the same purpose as life, then the urge of life must show itself as strongly in one as in the other. When this interest is lacking, there is something wrong; furthermore, the fault is probably with the education rather than with the pupil.

Desire should precede study, just as appetite should precede eating. The thing that is desired must furthermore be within the field of the previous knowledge and desires of the child, except insofar as he is emotionalized by inherited desires and joys, as perhaps in the case of play. In general, however, a study should have an immediate objective that is outside itself. Learning to read should be motivated by the need and desire for what reading can give; arithmetic should be motivated by an actual need for solving specific problems. If these needs do not exist, it is evidence that we have mishandled life by organizing it on a purely adult basis in which children are pensioners instead of workers and partners. It is such an attitude that has made education a filling-up process instead of an experience of life. Children must be allowed to trim their own Christmas trees in a figurative as well as a literal sense. Arithmetic 'examples' are an indication of this wrong orientation. An 'example' should illustrate a principle, to be sure, but it should also be a genuine problem in itself with a real application to life.

To carry out such a program will mean that mathematics and the natural sciences must be taught, not primarily as abstractions and not primarily in and for themselves, but in their relationship

to life, and that the 'humanities' must be made still more genuinely human and vital. This does not mean that all learning must be 'practical,' in the sense of finding its sole objective outside of itself. The aeroplane, when it is once off the ground, creates its own reasons for flying, and so scholarship is continually discovering other and finer ends, but these come to light only in the process of learning; nor does it mean that these subjects may not be carried to a high degree of abstraction on the one hand and of intellectual refinement on the other; it means, however, that this can be done only after the interest of the pupil has been definitely secured.

All these subjects, even when vitalized individually, must however be looked at, not as things in themselves, but as contributing to something larger, namely the study of life itself, and this means a study of civilization on the one hand and of progress on the other —both seen against the background of man's relation to the universe, for civilization cannot be understood and progress cannot be directed except upon a basis of natural law.

A vitalized education must therefore have as its first large objective the detailed study of civilization. The child of to-day is quite unprepared in the deeper parts of his mind and spirit, as well as technically, for taking his place in the larger life of the world. Civilization in its complexity and latent possibilities is like a high-powered automobile, and yet we at present turn this machine over to the new generation without giving them any real understanding of what it is and of how to run it.

The child of to-day—changing metaphors—has lost the moorings of the past, but he does not know how to manage sails and steering gear and so he is drifting with the tide. The flapper and jazz are products of these conditions. The flapper is a glorification of the new freedom from the old restraints. Jazz is an elemental yet sophisticated emotional rhythm that has taken the place of a simpler and sweeter harmony of the mind and spirit. These phenomena are extremely interesting and far from discouraging, particularly as the youth of the country are themselves rising to the problem of adjusting themselves to the situation, but they do very definitely indicate the need for bringing the forces at our disposal—and the strongest of these is undoubtedly the public school system—to bear upon the problem of helping our children find themselves and take their places in the world.

The study of progress will naturally flow out of an alert and sympathetic study of civilization itself, for progress is only a carrying on of processes already begun and guides for the future must be sought in an intelligent study of the past.

In periods of the world when life was lived less keenly, when there were fewer opportunities for living a full and rich life, waste in education was a less serious matter. In the world of to-day, however, where there is so much good living to be done, an education that is not assimilated, an education that wastes the time of the pupil, that dulls and perhaps turns the edge of his mind and spirit, cannot be tolerated. Shall we be content to be less efficient in our use of life itself than in our use of the materials of life? Modern industry has comparatively few waste products. What has been done with coal-tar and with the by-products of the slaughter house is typical of what is being done in industry in general. The greatest wastes of life to-day are not on the material side of living, but in those parts of life where we are concerned with things of the mind and of the spirit. We are wasting our forests and our mines and even the lives of our children, not because we cannot do otherwise, but because we won't. We are halting in the solution of our greatest problems—and for that reason failing to extract the greatest enjoyment out of life, since happiness comes from success in living—not because we have not the technique to solve these problems, but because we have not developed the attitudes of mind that will put our techniques to work.

To conquer not only the physical world but ourselves as well is the next great step in civilization and in this the school must undoubtedly take the leading part. In our conquest of the physical world it was to a certain extent possible to get out of touch with life without a sacrifice of the success of the enterprise, but we cannot master *ourselves* except through a knowledge of life itself.

Every sign points to the fact that this re-direction of education is coming. There has been in the last thirty years immense progress made in bringing education into touch with life. There are a few schools that are conspicuous examples of what can be done in this field; there are many others that are struggling toward the light, but under severe handicaps. There are a multitude of teachers that have seen the vision and that are following it so far as they

can under the conditions with which they have to work—in fact, a 'good' teacher is good just because of his ability to vitalize his teaching. But what has been done in this field up to the present time has been fragmentary rather than organic. The great task of the present generation is to reassemble the materials of education and focus them consciously and directly upon the problem of living. This is a tremendous task; it will take money, it will take intelligence, and it will take qualities of the heart that are beyond intelligence, but it is the only way in which we can meet the emergency which confronts civilization to-day.

This orientation should be carried out throughout the whole educational system, from the elementary school on the one hand to the university on the other, but it seems to be particularly needed in the years of adolescence. This heady new wine, effervescing with the consciousness of new meanings in life, peculiarly needs to be put into new educational bottles. Adolescent children must have educational objectives that have something of the same vital quality as the stuff that they feel running through their own veins.

The part that safety and the other subjects of which it is a type will take in this re-organization seems fairly clear. Health, safety, thrift, and conservation are all characterized by having an immediate relationship to life. They involve fundamental attitudes of mind that it is necessary for one to have if he is satisfactorily to look out for himself and take his place in society. They, with other similar attitudes of mind, such as honor, truthfulness, bravery, courtesy, unselfishness, and self-reliance, constitute some of the most basic and important objectives in education. Our schools can do nothing better nor more fundamental than to make our children honorable, truthful, brave, courteous, unselfish, self-reliant, able to recognize the finer values in life, and disposed to conserve, rather than waste, their health, their lives, and the resources of nature; there are no more fundamental nor important objectives than these. If reading and arithmetic and geography and history and manual training are worth studying, it is not primarily for themselves or for remote ends, but because they contribute to the building up of such attitudes of mind and of the knowledges and skills that must accompany them if they are to be of practical effect.

These subjects, these attitudes, should therefore permeate the various studies of the curriculum, not merely as subject matter to illustrate principles, but as part of the real objectives toward which the studies themselves are directed. And they will get further consideration in the practical study of civilization, each in the degree in which it contributes to the sum-total of effective living.

CHAPTER XIV

SUMMARY AND OUTLOOK: FUTURE PROBLEMS

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In the foregoing chapters there have been presented certain problems, some selected practices, and a statement of a theory relating to safety education. Furthermore, this new claimant for school attention has been considered a subject of instruction which is immediately related to industry, to transportation, to the home, and to the school. It has also been viewed in its broader aspect as a new human emphasis in industrial and social relations. Safety education has been clearly shown by striking arrays of facts to be a part of the job of keeping physically alive, as well as being associated with the general problem of living together well in organized society. The purpose of this chapter is to make a brief summary of what has preceded and to suggest future problems.

In an earlier chapter it was pointed out that a condition of safety with respect to any people grows out of their habits of living or of acting at any given time. For example, in a primitive society, even in a nomadic state and later among peoples with simple industrial interests, or even in modern times in a distinctively rural community, hazards exist against which precautions have to be taken if life itself is to be preserved, personal injury avoided, and social purposes realized. Education in safety is the education which leads to the avoidance of accident in the face of such hazards.

As the social and economic structure became more complex, and high speed and complicated machinery came into use, new dangers accompanied this development, and systematic instruction in industrial safety followed. Safety organizations in industrial plants began to appear in 1905 and grew rapidly in number. It was evident that society was gradually becoming more sensitized to considerations of human and of individual worth as contrasted with considerations of material gain. The reduction of human losses following the movement for organized industrial safety, the increase in production, as well as the better working relations between employee and employer which safety considerations have provided,

are notable achievements in this field. Human life won out against mere productive output. Civilization was advancing.

With the comparatively recent advent of the automobile, and with the multiplicity of electrical and mechanical devices found in the home, new conditions of hazard have arisen, and the public is becoming convinced that the time has come when the question of the meaning and methods of teaching safety in all its relations, whether in industry, in public places or in private associations, needs to be re-examined and principles formulated which shall guide subsequent practices. It is to aid in this examination that this Yearbook has undertaken to trace the development of education in safety, and to illustrate concretely what the schools are actually doing, leaving the other aspects of safety education to other agencies. The attempt has also been made to show the fundamental significance of safety to all the aspects of human living.

Such questions as these appear at the outset of the discussion: "Is safety a subject to be taught or an attitude of mind to be cultivated?" "Is there merely a body of information to be learned and skill to be acquired, or is the safety idea a germinal one with implications reaching into the fields of personal, social, and ethical responsibilities?" "Is teaching safety something more than developing mere caution?" An examination of the chapters dealing with the subject matter of safety education clearly indicates that the content of the courses in safety is as inclusive as the range and frequency of accidents, and that these in turn are limited only by the number and types of activities in which people are engaged. It is shown that in general, however, the majority of serious accidents group themselves in seven general classes, in which falls, automobile accidents, and railroad accidents are most prominent. The detailed practices outlined in the several accounts of the teaching of safety education, show how the immediate environment of the pupils has been utilized to teach safety, and also how the existing subjects of the curriculum are employed to impress lessons of caution. Underlying the discussion of specific items of instruction, there is also the objective of creating an attitude of mind on the part of the pupil which will lead not only to a concern for his own personal escape from injury, but also to a sense of responsibility for the safety of others. These ethical and social ideals constantly appear in the program of safety education.

On the side of subject matter, safety education is closely linked with the future of a wide range of subjects such as thrift, humane education, health, character education, and citizenship, all of which are asking for a larger place in school programs. Each of these interests is characterized as having a particularly close relationship to life. At this point safety education comes in and asks, safety for what? The answer is: the purposes of life; whether they be simple or complex, safety is the condition under which they may be realized. Purpose is implied. Objectives are established. The process is one of adjustment to conditions which make the realization of a purpose possible. Failure to adjust may mean a personal injury or a social accident. Thus education in safety is identical in process with the fundamental idea in all forms of education, namely, the thought of the progressive adjustment of an individual to his environment of things, people, institutions, and ideals.

Moreover, each of the subjects enumerated has a body of teaching material of intrinsic worth, and, if they are to find a place in the curriculum of the elementary and higher schools, they must be united in their general purpose, and related to this purpose. To bring about this synthesis requires a fundamental revision of the school curriculum. It is becoming increasingly clear that we cannot keep on indefinitely adding specific items to the curriculum. New groupings must be made, and guiding principles established as a basis for the selection of subject matter. Safety education, with the other special interests, must find itself as a part of a larger whole.

In addition to showing that safety education has content in itself, and that it calls for the teaching of knowledge and skills, the Yearbook points out that back of all safety instruction there is to be developed on the part of the learner, as suggested above, an attitude of mind which shall recognize the supreme worth of the individual's personality and a regard for his social relationships.

This aspect of the discussion is especially emphasized in the preceding chapter dealing with the fundamental significance of the safety movement. It is in this connection that other attitudes of mind leading to such qualities as honor, bravery, truthfulness, courtesy, and self-reliance, ally themselves in purpose and in psychological approach to safety education in its wider and real meaning.

While safety involves an attitude of mind, it has also been shown to be partly knowledge and partly technique. This orientation of safety education, if accepted as valid, is going to make necessary an intensive study of how to produce attitudes of mind. This is a phase of education to which very little attention has been given in the schools, though it has been intensively studied in the fields of publicity and advertising. It is an area of thought that is not only largely unexplored but also full of difficulties, and not only difficulties but dangers. Right attitudes of mind cannot be provided except in an atmosphere where truth is dominant, where facts are given their relative values and the ultimate purposes are high and worthy. That is one of the particular reasons why the new types of social propaganda, of which safety is one, should be integrated with the new curriculum of the school. For it is here that instruction can be kept in closest touch with the facts of the world, instead of being dictated by ignorance and prejudice, and in the interests of special pleading.

While this relationship to the truth is the first essential, it is necessary also to develop the actual detail of producing such attitudes of mind. This becomes a question of method. It will undoubtedly be found that such instruments as the drama will be peculiarly important in the development of mental attitudes. Safety plays have been found particularly helpful in making a healthy emotional appeal and in creating right attitudes of mind in which the qualities have been of the finer sort, especially after the pupils have gained safety knowledge and some skill in avoiding accidents. A problem for future consideration in safety education, and, in fact, in all forms of education, is that of creating in pupils an attitude of mind with ethical qualities of regard for others, while at the same time the pupil gains possession, within his capacity, of the more tangible aspects of education, such as knowledge and skill, both of which have been for a long time the main objectives of school education.

Another concrete and immediate need may be stated thus: safety has certain rather obvious connotations and other implications which, after a little reflection, become at least apparent. These meanings, especially the ethical and social aspects of safety, exist at present for the most part only as abstractions. The consequence is that the subject, notwithstanding the wide range of material

now in use, is at present relatively thin in instructional material. Most of what has been developed, however, starts very definitely on the negative side. An important step that can be taken in the safety field at present, is to develop the positive approach to safety and make it concrete and vital; in other words, give safety a real body. This is a problem of research upon which students are at work.

Two more specific aspects of the same problem are these: first, studies must be made to find just where safety can be best fitted in as an objective in the subject matter of the various *existing* courses. Furthermore, safety courses must be *devised* to meet particular conditions—for instance, the city problem is different from the rural problem and particular courses should be adapted to each of these.

Most of the work already accomplished has been in the primary and elementary schools. One of the most important problems confronting those interested in safety education is the formulation of programs of instruction for the junior and senior high schools. These administrative units have been practically untouched. Two suggestive but limited illustrations of safety activity are given in Chapters VII and VIII. It is generally recognized that the junior high school is a peculiarly interesting field because the higher the pupil advances in his school life, the more he gets into the area of positive approach with respect to safety education and into a field that has large social implications for all his studies. Important as the work is in the elementary schools in producing attitudes of mind and personal habits leading to the avoidance of accidents, the development of a safety program for the junior and senior high schools presents possibilities even more interesting as a basis for the development of a positive social point of view, in safety and all school activity.

An equally important problem with those which precede is that of preparing teachers. Something has been done by Dr. Payne of New York University and a few others, but until the normal schools and similar teacher-preparation institutions give adequate attention to the importance of the safety idea as expressed both in subject matter and in attitudes of mind, we cannot hope to have safety find its way into the classrooms in any far-reaching way.

Before a program of action can be outlined, there is need of research in this field. Three fellows, supported by fellowships of the National Bureau of Casualty and Surety Underwriters of New York, are this year working on a problem involving the study of the technique of the development of a social consciousness—a regard for others on the part of pupils, (1) in relation to the curriculum for the elementary school; (2) in connection with courses for normal schools; and (3) by a laboratory investigation of the part that fear plays and should play in safety teaching. There are other similar research problems to be solved. For instance, if one follows the lead and goes well over to the positive aspect of safety teaching, he comes to the need of a development which shall not be merely a technique to avoid accidents, but rather a positive technique which shall aim to get the greatest possible benefit out of recreation and physical education, and to fulfill the purposes of living. He will be brought into the general field of education.

Work should also be done in making a critical evaluation, from an educational point of view, of what has already been done in safety education through industry, public and school safety teaching, and the results should also be appraised, not merely in statistics as to actual accidents, but if possible also in terms of positive conduct.

In short, safety is immediately related to life, physical and social. Because it is related to life, it has a place in the modern school curriculum. Its educational significance grows out of the breadth of the safety concept, and its incidence in relation to the problem of living. Safety implies purpose. Safety is the condition which accompanies the realization of a purpose and teaching safety is teaching how so to control the factors in an environment that a purpose may be realized. Where coördination fails, an accident occurs. The result is similar, whether the forces are material or ethical.

When we have solved the problem of personal and group relations as completely as we have those dealing with mechanical forces, we shall have gone a long way in solving the fundamental problem of safety, which is coöperative living. It is to help solve this problem that the schools exist. The next steps demand thorough research and careful experimentation, directed by a high social purpose.

CHAPTER XV

AN ANNOTATED BIBLIOGRAPHY ON SAFETY EDUCATION

Compiled by
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This bibliography is not exhaustive. The purpose has been to furnish a useful, working bibliography of readily available material, bearing directly upon the safety problem and safety education in the schools. Certain publications have not been included, either because they are out of print or otherwise difficult of access, or because they are too general in character to be of specific value. No attempt has been made to list the large number of courses of study, textbooks, and supplementary readers which contain small amounts of safety material. Courses of study and bulletins on safety education issued locally in typewritten form have for the most part been omitted as not easily available.

There may be publications in this field which are unknown to the compiler, and which should have been included. Any such omission is regretted.

A number of the items listed really belong under more than one classification, but in each case the one classification has been chosen under which the item in question appeared most obviously to belong.

PART I. THE SAFETY MOVEMENT

1. History and Development

ALEXANDER, MAGNUS W. "A review of the safety movement." Chicago, *National Safety Council Proceedings*, 1924, pp. 954-961.
Sums up the results of the safety movement from 1913 to 1924.

CAMERON, WILLIAM H. *Accident Prevention in America.* Chicago, National Safety Council, 1923. 9 pp. (Issued in typewritten form)
A paper presented at the International Labor Conference, Geneva, Switzerland, giving an excellent account of the ideals and development of the safety movement.

LITTLE, R. M. "The present status of industrial safety." Chicago, *National Safety Council Proceedings*, 1922, pp. 32-40.

Traces the development of the safety movement in industry and points out its relation to workmen's compensation laws, insurance, and the federal bureaus working in the industrial safety field.

WHITNEY, ALBERT W. "The safety movement in the United States." Chicago, National Safety Council, 1924. (Issued in typewritten form)

A paper presented at the Pan-American Scientific Congress, Lima, Peru, December, 1924. Describes the safety movement as it is today, with its growing emphasis upon education.

2. Educational Aspects

DEBLOIS, LEWIS A. "A place for safety." Chicago, National Safety Council, 1924. (Issued in typewritten form) 8 pp.

An analysis of the need of safety education among engineers and other industrial technicians, presented at a joint meeting of the American Society of Mechanical Engineers and the American Society of Safety Engineers, New York City, December, 1924.

National Conference on Street and Highway Safety. Report of the Committee on Education, Washington, 1924. 23 pp. (Pamphlet)

TIGERT, J. J. "The need for safety education in our public schools." Chicago, *National Safety Council Proceedings*, 1922, pp. 47-51.

Shows as the reason for the need of safety education the increasing complexity of modern life and our lack of adaptation to it, and describes the work done in this field by the schools of St. Louis and other cities as convincing proof of the effectiveness of safety instruction.

WHITNEY, ALBERT W. "The inner meaning of the safety movement." New York, National Safety Council, Education Division, 1923. 12 pp. (pamphlet)

Analyzes the implications of the safety idea with special reference to the problems of education.

WHITNEY, ALBERT W. "Safety education in the public schools." New York, National Safety Council, Education Division, 1922. 8 pp. (pamphlet)

This address, which was given before the National Education Association, Milwaukee, July 4, 1919, describes the method of introducing safety into the curriculum of regular school subjects.

WHITNEY, ALBERT W. "Safety for more and better adventures." New York, National Safety Council, Education Division, 1924. 8 pp. (pamphlet)

An address before the Eleventh National Congress of the Playground and Recreation Association of America, Atlantic City, October 17, 1924, which traces the relation between safety, recreation, and education.

3. Accidents: Their Extent, Cause, and Prevention

CHANEY, L. W. "Outstanding safety features in the iron and steel industry." Chicago, *National Safety Council Proceedings*, 1922, pp. 447-453.

FISHER, BOYD. *Mental Causes of Accidents.* Houghton, Mifflin Company, 1922. 315 pp.

An analysis of mental states, such as worry, inattention, stubbornness, etc., as factors in industrial accidents.

NATIONAL BOARD OF FIRE UNDERWRITERS. *Safeguarding the Home Against Fire.* New York, National Board of Fire Underwriters, 94 pp. (Pamphlet)

A good description of the causes of fires, with suggested methods for extinguishing and preventing them and treatment of burns.

NATIONAL CONFERENCE ON STREET AND HIGHWAY SAFETY. *Annual Report, 1924.* Washington, United States Department of Commerce, 1924. 51 pp. (Pamphlet)

A general survey of the field of public accidents and their prevention.

NATIONAL SAFETY COUNCIL. *The National Safety News.* Chicago, National Safety Council, published monthly.

The official organ of the National Safety Council, devoted to industrial and public safety.

NATIONAL SAFETY COUNCIL. *Safety-ize.* Chicago, National Safety Council. 48 pp. (pamphlet)

A detailed description of common accidents in the home and on the street with measures for their prevention.

NATIONAL SAFETY COUNCIL. *Public Accidents—A National Problem.* Chicago, National Safety Council, 1925. 36 pp. (pamphlet)

The statistical report of the National Safety Council for the year 1925, presenting figures on public and other accidents for the United States according to a number of different classifications.

United States Bureau of Standards. *Safety for the Household.* Washington, Government Printing Office, 1918. 127 pp. (pamphlet)

An excellent discussion of home accidents and their prevention, with special emphasis upon electrical hazards.

4. Agencies for Promoting Safety

(a) National

National Safety Council. *The National Safety Council—a History of its Aims and Developments.* Chicago, National Safety Council. 6 pp. (Issued in typewritten form)

National Safety Council. "What industry is doing for safety." *National Safety News,* March, 1922, pp. 6-7.

Resnick, Louis. "Uncle Sam as a safety man." *National Safety News,* February, 1922, pp. 11-15.

A description of the work of the United States Bureau of Mines and other federal bureaus concerned with accident prevention.

Resnick, Louis. "Who's doing safety work in America?" *National Safety News,* January, 1922, pp. 7-10.

A description of the accident prevention work of the insurance companies.

Stewart, Ethelbert. "The government and safety." *National Safety News,* January, 1923, pp. 27-28.

A description of the life-saving and preventive work of the federal departments, such as the Coast Guard, Lighthouse Service, Weather Bureau, etc.

(b) State

Christopherson, M. H. "New York State's part in safety work." *National Safety News,* March, 1922, p. 23.

Connelley, Dr. Clifford B. "What Pennsylvania is doing for safety." *National Safety News,* March, 1922, p. 20.

French, Will. "California's contribution to the industrial safety movement." *National Safety News,* March, 1922, pp. 24-25.

National Safety Council. "What state governments are doing for safety." *National Safety News,* March, 1922, pp. 22-23.

Stoeckel, Robbins B. "State laws and public safety." *National Safety News,* August, 1923, p. 14.

ROACH, JOHN. "Helping New Jersey employees in safety and sanitation." *National Safety News,* March, 1922, pp. 21-22.

WILCOX, FRED M. "Wisconsin's work in safety and sanitation." *National Safety News,* March, 1922, pp. 22-23.

(c) Local

BARTHOLOMEW, HARLAND. "City planning as an aid to public safety." *National Safety News,* October, 1924, pp. 45-62.

KNOWLES, MORRIS. "Rebuilding our cities for the motor age." Chicago, *National Safety Council Proceedings,* 1924, pp. 809-828. (also pamphlet)

MCCLINTOCK, MILLER. "Police functions and street hazards." *National Safety News,* September, 1923, pp. 17-19.

PART II. COURSES OF STUDY AND TEXTBOOKS

ALLENTOWN, PENNSYLVANIA. *Safety Instruction for the Allentown Public Schools.* Allentown, Board of Education, 1923. 26 pp. (Issued in typewritten form)

AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA, PUBLIC SAFETY DEPARTMENTS. *Safety, a School Project.* Los Angeles, Automobile Club of Southern California, 1923. 74 pp. (pamphlet)

Gives suggestions for subject matter and method in teaching safety, health, and thrift. Graded.

BEARD, HARRIET E. *Course of Study in Safety Education.* Detroit, Board of Education, 1920. 31 pp. (pamphlet)

A graded course of study for elementary schools. An excellent guide for the teacher as to the subject matter to be considered in each grade.

BEARD, HARRIET E. *Safety First for School and Home.* New York, Macmillan Company, 1924. 223 pp.

Much practical information as to causes of street and home accidents, with suggestions for eliminating them. Contains the Detroit Course of Study as listed above.

BIRMINGHAM SCHOOL SAFETY COMMITTEE. *An Outline of Safety Education for Elementary Schools and Junior Safety Council Organizations.* Birmingham, Alabama, Birmingham Safety Council, 1925. 46 pp. (pamphlet)

A graded course of study, supplemented by illustrative materials, and a plan of organization for school safety activities.

Chicago Board of Education. (Committee appointed by the Superintendent of Schools) *Safety Education, a Plan Book for the Elementary School.* Chicago, Board of Education, 1923. 160 pp. (pamphlet)

Presents the seasonal hazards for each month, together with suggestions as to methods of instruction. Stories, slogans, jingles, bibliography, and valuable information as to specific hazards and remedies are given.

Committee of Teachers on Safety Education, Cincinnati, Ohio. *Course of Study in Safety Training.* Cincinnati, Cincinnati Automobile Club, 1924. 111 pp. (pamphlet)

A plan with illustrative materials, from Grade I through VIII.

Cleveland. *Safety Instruction Manual for the Cleveland Public Schools, Grades 1 to 4.* Cleveland, Board of Education, 1921. 35 pp. (pamphlet)

A graded manual giving outline of work, with plan for junior safety councils or club activities.

Kansas City Safety Council, Children's Activities Committee. *An Outline of Safety Instruction and Junior Safety Council Organization for Kansas City Elementary Schools.* Kansas City, Missouri, Kansas City Safety Council, 1924, 35 pp. (pamphlet)

Aims, methods, and suggested topics for class discussion are given, showing possibilities of correlating safety with regular elementary-school subjects. A complete outline of a standard junior safety council is included.

La Crosse Advisory Council of Teachers. *Safety and Fire Prevention for the La Crosse Public Schools.* (Bulletins 2 and 3) La Crosse, Board of Education, 1923. 16 pp. (pamphlet)

Louisville. *A Tentative Safety Course.* Louisville, Board of Education, 1925. 137 pp. (pamphlet)

National Safety Council, Education Division. *An Introduction to Safety Education, a Manual for the Teacher.* New York, National Safety Council, Education Division, 1924. 99 pp. (pamphlet)

An introductory chapter by Professor Harold Rugg presents the educational principles on which safety instruction is based. Suggestions for correlating safety with the regular curriculum subjects, facts about accidents and their prevention, detailed projects, statistical tables, and a bibliography are included.

OMAHA SAFETY COUNCIL, PUBLIC SCHOOL COMMITTEE. *An Outline of Safety Instruction and Suggestions for Junior Safety Council Organization for Omaha Elementary Schools.* Omaha, Omaha Safety Council, 1925. 28 pp. (pamphlet)

Topics for school and home safety and suggested projects.

OREGON. *Course of Study for Safety Education in Oregon Schools.* Salem, State Department of Education, 1921. 62 pp. (pamphlet)

An outline for work in each grade, with illustrations and suggestions for teaching. An excellent section on electrical hazards is included in the form of stories for each grade.

PAWTUCKET TEACHERS' SAFETY COUNCIL. *Safety Training for Children.* Pawtucket, Public Schools, 1925. 91 pp. (pamphlet)

Outline arranged by months, using as the key-note of each month the appropriate seasonal hazards.

PAYNE, E. GEORGE. *Education in Accident Prevention.* New York, Lyons and Carnahan, 1919. 149 pp.

A treatise which shows how accident prevention may be a part of the regular school instruction without the addition of another subject to the curriculum. Illustrative lessons included.

PAYNE, E. GEORGE, and SCHROEDER, LOUIS C. *Health and Safety in the New Curriculum.* New York, American Viewpoint Society, 1925. 318 pp.

A teacher-training book showing the value of health and safety as objectives in education. These subjects are analysed with reference to the present revision of the elementary-school curriculum.

PROVIDENCE SAFETY COUNCIL, SCHOOL COMMITTEE. *A Suggested Course in Safety Education, Grades I-VI.* Providence, Providence Safety Council, 1925. 33 pp. (pamphlet)

ROWEN, JENNIE J. and COTTON, HATTIE R. *Safety Instruction for the Nashville Public Schools.* Nashville, Nashville Automobile Club, 1922. 48 pp. (pamphlet)

SCHENECTADY, DEPARTMENT OF PUBLIC INSTRUCTION. *Outlines for Safety Instruction in the Public Schools.* Schenectady, Department of Public Instruction, 1924. 42 pp. (pamphlet)

SPRINGFIELD, MASSACHUSETTS, PUBLIC SCHOOLS. *A Tentative Course in Safety Education, Grades I-VI.* Springfield, Public Schools, 1925. 40 pp. (Issued in typewritten form)

Arrangement of subject by aims, subject matter, and method for each grade, with a detailed account of one project suitable for each grade.

VIRGINIA, MINNESOTA, INDEPENDENT SCHOOL DISTRICT. *Courses of Study Manual No. 10.* Virginia, Independent School District, 1924. 48 pp.

About half of this manual, which includes patriotism, hygiene, etc., is devoted to safety, and gives subject matter for each grade.

WHITING, INDIANA, PUBLIC SCHOOLS. *Safety Instruction for the Whiting Schools.* Whiting, School Department, 1921. 20 pp. (pamphlet)

PART III. ILLUSTRATIVE MATERIALS

(Includes material which presents or illustrates methods, devices, and approaches for the teaching of safety)

ABBOTT, J. W. "The kindergarten and safety first." *School Life,* November, 1921, p. 64.

ARROWSMITH, MARY NOEL. "Safety education and the pre-school child." *Child Welfare Magazine,* November, 1924, pp. 134-137.

ARROWSMITH, MARY NOEL. "Teaching safety to the next generation." Chicago, *National Safety Council Proceedings,* 1924, pp. 918-926.

BAILEY, R. R. *Sure Pop and the Safety Scouts.* Yonkers, World Book Company, 1917. 128 pp.

A supplementary reader for Grades IV to VI.

BEARD, HARRIET E. "Teaching the child to be careful." Chicago, *National Safety Council Proceedings,* 1923, pp. 853-861.

BIGELOW, MAURICE A. and BROADHURST, JEAN. *Health for Every Day.* New York, Silver, Burdett, and Company, 1924. 247 pp.

Contains excellent safety, as well as health material.

BIGELOW, MAURICE A. and BROADHURST, JEAN. *Health in Home and Neighborhood.* New York, Silver Burdett, and Company, 1924. 328 pp.

Contains valuable material on community safety.

BOOTHE, STELLA. *The Jimmie Stories.* Yonkers, World Book Company, 1925.

A supplementary reader for Grades IV to VI. Describes the formation of a junior safety council through the children's own efforts.

BOY SCOUTS OF AMERICA. *Safety First.* New York, Boy Scouts of America, 1919. 51 pp.

BROWN, J. W. "Street safety education for school children." Chicago, *National Safety Council Proceedings,* 1923, pp. 863-866.
An account of the work carried on by the Detroit Police Department in conjunction with the public schools.

COCHRAN, ANN. "A safety project." *Popular Education,* March, 1922, pp. 394-395.

DAWSON, C. D. "The correlation of safety with grade school subjects." Chicago, *National Safety Council Proceedings,* 1924, pp. 336-340.

D'ARMOND, LUTHER B. "Teaching safety in the continuation school." *National Safety News,* February, 1923, p. 29.

FLOWERS, IDA M. *The Correlation of Safety with English.* New York, National Safety Council, Education Division, 1924. 8 pp. (pamphlet)
Reprint of an address given at the 1924 Congress of the National Safety Council, describing this side of the safety work carried on at the Montebello, School, Baltimore.

FOOTE, MARY. *The Runaway Ball.* New York, Education Division, National Safety Council, 1925. 12 pp. (pamphlet)
A play for boys, dramatic and full of action.

FRYER, JANE E. *Community Interest and Public Spirit.* Philadelphia, John C. Winston Company, 1919. 283 pp.
One of the "Young American Reader" series. Contains a section on safety and first aid, together with material on related subjects, such as gas and electricity, parks, playgrounds, etc.

GOSLING, THOMAS. *Interesting the Teacher in Safety Education.* New York, National Safety Council, Education Division, 1924. 16 pp. (pamphlet)
Reprinted from the Proceedings of the 1924 National Safety Council Congress. An analysis of the teacher's part in safety education, and a detailed program of the work done at the Brayton School, Madison, Wisconsin.

GRUVER, HARVEY S. and STEVENSON, IDABELLE. *The Demonstration Center for Safety Education.* New York, National Safety Council, 1924. 27 pp. (pamphlet)
An analysis of the demonstration center as one method of introducing safety instruction into a school system, as developed in Lynn, Massachusetts, and a collection of illustrative material and programs from other demonstration centers.

HARRIS, HANNAH M. *Lessons in Civics for the Six Elementary Grades of City Schools.* Washington, United States Bureau of Education, Bulletin 18, 1920. 64 pp. (pamphlet)

An excellent series of lessons in civics covering the most important points in the field of safety education, with many suggestions for constructive work.

HILL, CHARLES T. *Fighting a Fire.* New York, Century Company, 1918. 305 pp.

The story of the city fire department, well told and illustrated.

JAMES, STEPHEN, ED. *Six Safety Lessons.* Washington, Highway Education Board, 1921. 48 pp. (pamphlet)

A collection of the prize-winning lesson plans and essays submitted in the 1921 Highway Education Board contest.

MARTIN, FRANK E. and DAVIS, GEORGE N. *Firebrands.* Boston, Little, Brown, and Company, 1913. 219 pp.

A supplementary reader on fire prevention, written from a constructive point of view and happily lacking in the fear-inspiring element.

MASSACHUSETTS SAFETY COUNCIL. *Ten Safety Stories for Young People.* Boston, Massachusetts Safety Council, 1921. 32 pp.

MASSLICH, GEORGE B. "The requisites of safety in elementary schools." Chicago, *National Safety Council Proceedings,* 1923, pp. 321-325.

NATIONAL BOARD OF FIRE UNDERWRITERS. *The Trial of Fire.* New York, National Board of Fire Underwriters, 14 pp.

A fire prevention play for school use.

NATIONAL SAFETY COUNCIL. Calendar. Chicago, National Safety Council. 12 pp.

A calendar of twelve large sheets, each containing an excellent illustration of some phase of safety, and printed on the reverse side with information on accidents and their prevention.

NATIONAL SAFETY COUNCIL, EDUCATION DIVISION. *Safety Education.* New York, National Safety Council, Education Division, monthly magazine. 16 pp.

A magazine for teachers and pupils, containing articles, stories, projects, plays, and various special features including a colored supplement.

PAYNE, E. GEORGE. *A Program of Education in Accident Prevention with Methods and Results* Washington, United States Bureau of Education, Bulletin 32, 1922. 54 pp. (pamphlet)

A short exposition on the need and method of safety education.

REDMOND, F. E. "The junior safety army." *National Safety News,* January, 1923, pp. 5-7.

A description of the development and results of the junior safety council movement.

SCHRADER, C. L. "The correlation of safety and physical education." Chicago, *National Safety Council Proceedings,* 1924, pp. 351-356.

STEVENS, THOMAS WOOD. *Adventure, a Pageant-Drama of Life and Chance.* New York, National Bureau of Casualty and Surety Underwriters, 1923. 114 pp. (pamphlet)

STEVENSON, IDABELLE. "The demonstration school of safety education." *National Safety News,* October, 1924, pp. 21-23.

STOECKELS, R. B. *Five Articles on Safety for Children.* Hartford, State Department of Motor Vehicles, 1923. (pamphlet)

STUART, FRANCES. *Bill's Christmas Fright.* New York, National Safety Council, Education Division, 1925. 16 pp.

A Christmas safety play for school use.

TOWNSEND, ANNE. *Bruin's Inn.* New York, National Safety Council, Education Division, 1925. 16 pp.

A play for the elementary grades on fire prevention and other phases of safety.

WALDO, LILLIAN M. *Safety First for Little Folks.* New York, Charles Scribner's Sons, 1918. 139 pp.

A supplementary reader for Grades III and IV.

PART IV. DESCRIPTION OF LOCAL EXPERIMENTS

BAKER, GEORGE L. "Portland school boys sign up for safety." *National Safety News,* June, 1924, pp. 17-18.

Description of appointment and work of junior safety patrols, with figures showing reduction of accidents to school children since their appointment.

HARVEY, JULIEN H. "Mothers and fathers as safety crusaders." *National Safety News,* January, 1923, p. 35.

Value of parent-teacher council in constructive safety work, with plan of activities outlining survey for existing physical hazards in school district, report of traffic violations in school district, and the routes for children going to and from school.

McCall, Charles A. "Knights of the crossroads." *National Safety News*, March, 1925, pp. 21-23.

History and plan of the city-wide organization of junior safety patrols in Newark, with results of work. Description of the award of medals for meritorious service.

Masslich, George B. "Results of safety teaching in Chicago schools." *National Safety News*, October, 1924, pp. 35-63.

Discussion of the ways in which safety is taught in the Chicago schools, with some results based on questionnaire submitted to the principals.

National Safety News. "Officer McBride and the safety scouts of Trenton." March, 1923. pp. 9-10.

Description of work of the boy safety patrols of Trenton.

National Safety News. "Saint Paul police win city recognition." May, 1924, pp. 29-30.

Gives the activities of the school police under the direction of an officer of the police department.

Reszke, F. E. "How Cincinnati school children are trained for safety." *National Safety News*, June, 1921, p. 21.

Presents program of safety education in use in the Cincinnati schools.

Wallis, George Earl. "The junior safety councils of Kansas City." *National Safety News*, February, 1924, pp. 5-9.

Tells how the Kansas City junior safety councils are kept busy, with a description of their junior court proceedings and special committee activities, such as home and fire inspection.

Wallis, George Earl. "Juniors set the pace in Louisville safety derby." *National Safety News*, August, 1924, pp. 11-12.

Shows how the Louisville children have actively helped in the reduction of accidents, and tells what services constitute eligibility for special award for conspicuous work.

CONSTITUTION OF THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

(As Revised at the 1924 Meeting of the Society)

Article I

Name.—The name of this Society shall be "The National Society for the Study of Education."

Article II

Object.—Its purposes are to carry on the investigation of educational problems, to publish the results, and to promote their discussion.

Article III

Membership.—Section 1. There shall be three classes of members—active, associate, and honorary.

Section 2. Any person who is desirous of promoting the purposes of this Society is eligible to membership and shall become such on payment of dues as prescribed.

Section 3. Active members shall be entitled to vote, to participate in discussion, and under certain conditions, to hold office.

Section 4. Associate members shall receive the publications of the Society, and may attend its meetings, but shall not be entitled to hold office, or to vote, or to take part in the discussion.

Section 5. Honorary members shall be entitled to all the privileges of active members, with the exception of voting and holding office, and shall be exempt from the payment of dues.

A person may be elected to honorary membership by vote of the Society on nomination by the Board of Directors.

Section 6. The names of the active and honorary members shall be printed in the *Yearbook.*

Section 7. The annual dues for active members shall be $2.00 and for associate members $1.00. The election fee for active and for associate members shall be $1.00.

Article IV

Officers.—Section 1. The officers of the Society shall be a Board of Directors, a Council, and a Secretary-Treasurer.

Section 2. The Board of Directors shall consist of six members of the Society and the Secretary-Treasurer. Only active members who have contributed to the *Yearbooks* shall be eligible to serve as directors.

Section 3. The Board of Directors shall be elected by the Society to serve for three years, beginning on January first after their election. Two members of the Board shall be elected annually (and such additional members as may be necessary to fill vacancies that may have arisen).

This election shall be conducted by an annual mail ballot of all active members of the Society. A primary ballot shall be secured in October, in which the active members shall nominate from a list of members eligible to said Board. The names of the six persons receiving the highest number of votes on this primary ballot shall be submitted in November for a second ballot for the election of the two members of the Board. The two persons (or more in the case of special vacancies) then receiving the highest number of votes shall be declared elected.

Section 4. The Board of Directors shall have general charge of the work of the Society, shall appoint its own Chairman, shall appoint the Secretary-Treasurer, and the members of the Council. It shall have power to fill vacancies within its membership, until a successor shall be elected as prescribed in Section 3.

Section 5. The Council shall consist of the Board of Directors, the chairmen of the Society's Yearbook and Research Committees, and such other active members of the Society as the Board of Directors may appoint from time to time.

Section 6. The function of the Council shall be to further the objects of the Society by assisting the Board of Directors in planning and carrying forward the educational undertakings of the Society.

Article V

Publications.—The Society shall publish *The Yearbook of the National Society for the Study of Education* and such supplements as the Board of Directors may provide for.

Article VI

Meetings.—The Society shall hold its annual meetings at the time and place of the Department of Superintendence of the National Education Association. Other meetings may be held when authorized by the Society or by the Board of Directors.

Article VII

Amendments.—This constitution may be amended at any annual meeting by a vote of two-thirds of voting members present.

MINUTES OF THE CINCINNATI MEETING OF THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION, FEBRUARY 21 AND 24, 1925

The first meeting of the Society was held Saturday evening, February 21st, 8 P.M., in Music Hall, and was devoted to a discussion of Part I of the Twenty-Fourth Yearbook of the Society, entitled *Report of the National Committee on Reading.*

Some 800 persons were assembled in this large auditorium. The amplifier installed on the platform made it possible for everyone to hear all the speakers without difficulty.

Dr. C. H. Judd, Chairman of the Board of Directors, called the meeting to order and introduced as presiding officer, Thomas J. Kirby, Professor of Education, State University of Iowa.

The following program was then presented, save that the general discussion which had been scheduled was eliminated, owing to the lateness of the hour.

I. "Introducing the Yearbook on Reading."
William S. Gray, Dean of the College of Education, the University of Chicago, and Chairman of the National Committee on Reading.
(20 Minutes)

II. "Vitalizing the Teaching of Reading."
Laura Zirbes, Investigator in Reading, Lecturer in English, The Lincoln School of Teachers College, New York City, New York.
(20 Minutes)

III. "Current Reading Issues and Needed Investigations."
Arthur I. Gates, Professor of Education, Teachers College, Columbia University, New York City, New York.
(20 Minutes)

IV. General discussion open to all active members of the Society.
(20 Minutes)

V. "Summary of Discussion."
Ernest Horn, Professor of Education, State University of Iowa, Iowa City, Iowa.
(10 Minutes)

The second meeting of the Society was held in the same auditorium before a much larger audience, perhaps 1300 persons.

This meeting was devoted to a discussion of Part II of the Twenty-Fourth Yearbook of the Society, prepared by the Society's committee under the chairmanship of C. E. Washburne, entitled *Adapting the Schools to Individual Differences.*

Owing to illness, Dean H. W. Holmes of the Graduate School of Education, Harvard University, was unable to preside, and the meeting was conducted by Dr. Judd.

The following program was given as scheduled:

I. "Introducing Part II of the Yearbook."
Carleton W. Washburne, Superintendent of Schools, Winnetka, Illinois, and Chairman of the Society's Committee.
(25 Minutes)

II. "Some Problems Involved in Individualizing Instruction."
A. J. Stoddard, Superintendent of Schools, Bronxville, New York.
(20 Minutes)

III. "Some Remarks in Appraisal."
William H. Kilpatrick, Teachers College, Columbia University, New York City, New York.
(20 Minutes)

IV. Discussion led by
Fred C. Ayer, Professor of Education, University of Washington, and open to all active members of the Society.
(30 Minutes)

The discussion introduced by Professor Ayer was continued by S. A. Courtis, Dean of Detroit Teachers College, Mrs. Wilson of South Philadelphia High School for Girls, Professor F. N. Freeman of the University of Chicago, Superintendent Stoddard of Bronxville, and Superintendent Washburne of Winnetka.

Annual Business Meeting

Immediately after this program was held the business meeting of the Society, at which the following matters were presented:

I.

Financial Report of the Treasurer

The Secretary-Treasurer announced that the Treasurer's report had been printed in each part of the 1925 Yearbook and that the Treasurer's accounts had been examined and approved by Messrs. Koos and Lord of the Board of Directors.

II.

Membership of the Board of Directors

The Secretary announced that the terms of Messrs. Holmes and Judd expired December 31, 1924. As the result of the mail ballot held in October and November, Messrs. W. W. Charters and C. H. Judd were elected to serve for three years beginning January 1, 1925.

It was also announced that at a meeting of the Board of Directors February 21, 1925, lots were drawn for the expiration of terms of four of the original six members. As the result of this drawing, the terms of Messrs. Rugg and Lord will expire December 31, 1925; those of Messrs. Courtis and Koos, December 31, 1926. Dr. C. H. Judd also consented to continue as Chairman of the Board during 1925.

III.

Innovations in Yearbooks

The attention of the members of the Society was called to the following innovations in the Yearbooks:

1.

Material descriptive of the Society and its activities (such as the constitution, Treasurer's report, list of members, etc.) is now printed in both parts of the Yearbooks.

2.

A synopsis of the Proceedings of the Board of Directors, including the general disposition of the Society's funds, has been inserted in both parts of the Yearbook, in order that the members of the Society may be fully informed concerning the work of the officers in charge of the work of the Society. It may be added here

that there has been no decision of major importance concerning the policy or activities of the Society that has not been the outcome of the unanimous vote of the Board.

3.

There has been printed in each part of the Yearbook a synopsis of the prospective Yearbook program (see, for example, pages 329-336 in Part I of the 1925 Yearbook.) The Board of Directors urges all members of the Society to read these "Reports of Yearbooks in Preparation," and to note the request for coöperation made by the chairmen of the four committees represented.

IV.

Proposed Yearbooks

1.

Attention was called to proposals published in the proceedings of the Board of Directors for Yearbooks on (a) Special Abilities and Disabilities, (b) Colleges of Liberal Arts, (c) Musical Appreciation, (d) Rural Education, (e) Speech Defects, (f) Gifted Children, (g) Health Education, and (h) The Prevention of Errors.

2.

A more detailed statement was then made concerning three other proposals for Yearbooks not cited or not fully described in the 1925 Yearbooks.

(a) Miss Flora Nettleman, of Toledo, suggested that the Society appoint a committee to prepare a Yearbook on Geography similar to the one just issued on Reading. This proposal was reported by the Board of Directors with the request that any members interested communicate with the Secretary at an early date. The Board reported that it was not prepared at this moment to make any further recommendation concerning this suggestion.

(b) Professor J. H. Stoutemyer, of the Nebraska State Normal and Teachers College, Kearney, Nebraska, also suggested that the Society issue a yearbook dealing with the making of school textbooks. In considering this proposal at its recent meeting, the Board of Directors felt that the topic might profitably be enlarged

to include a discussion of methods of selecting textbooks for use in public school systems. It would welcome suggestions concerning the need of such a yearbook, its contents, and the names of possible contributors. Professor J. B. Edmonson of the University of Michigan has been asked to consider the chairmanship of a committee to produce such a yearbook.

(c) As indicated in the Yearbook, the Secretary, at the request of the Board of Directors, has been in communication with various persons concerning the desirability of a Yearbook on "Mental Hygiene and the Public Schools."

At present the Board of Directors is in a receptive attitude toward this proposed yearbook, but is inclined to withhold its decision until it is certain that a satisfactory committee can be secured and that the time is ripe for a presentation that will be not only authoritative, but also sufficiently concrete and practical to meet the needs of the rank and file of teachers and school administrators.

V.

Statement and Resolutions Concerning the Death of Samuel Chester Parker

The following memorial statement was presented to the Society by Dr. C. H. Judd:

"The death of Samuel Chester Parker on July twenty-first, 1924, took from the National Society for the Study of Education a member who had rendered signal service to the Society and to the cause for the promotion of which the Society is organized. Professor Parker served as Secretary of this Society from 1911 to 1915. He saw the possibility of making it an organization of great influence through the publication and distribution of scientific studies and he gave a great deal of time and energy to the preparation of yearbooks and to the arrangement of public meetings at which the yearbooks were discussed. The success of the present plan of procedure which is characteristic of this Society is in no small measure the result of his insight and efforts.

"Professor Parker also contributed to the science of education by preparing useful summaries of the investigations made in this field and by training through his teaching a large number of stu-

dents of education. By his death the teaching profession loses one of its conspicuous leaders.

"Be it resolved: that the National Society for the Study of Education directs its Secretary to transmit to Professor Parker's family as a token of appreciation of his services to education and of the personal esteem in which he was held by his fellow-members in this organization this memorial statement; and be it further resolved: that a copy of the statement and resolutions be published as a part of the minutes of the annual meeting of this Society and in the columns of *School and Society.*"

The members of the Society then signified their unanimous approval of this statement and these resolutions by a rising vote.

VI.

Protests Against the Method of Electing the Board of Directors

At the request of the Board of Directors, the Secretary called the attention of the Society to the following situation:

Last year, at the annual business meeting of this Society, important changes were unanimously voted in the Constitution of the Society. These changes are printed in detail in the 1925 Yearbooks.

The essential feature of those changes was the elimination of the office of President and Vice-President, and of the Executive Committee and Board of Trustees, and the substitution therefor of a single Board of Directors with a presiding Chairman. The object of the changes was to secure a more consistent supervision of the professional activities of the Society, and to insure continuity of aims and policies and wise provision for meeting our problems of publication for several years in advance.

Those who advocated the changes were anxious to conserve every element of democratic control that could wisely be conserved. To that end, the proposed changes were printed and mailed to every active member of the Society with a request for criticisms and the changes were also put forward for debate from the floor at the Chicago meeting. The result was that the changes were adopted without a single dissenting vote, and the Board of Directors has been in operation since February, 1924.

The two members to be chosen for 1925 were elected according to the express provisions of the new Constitution by a double ballot

which gave opportunity for every active member of the society to express his preference.

During that election three persons criticised the whole plan of election, contending that it was undemocratic, urging in particular that every active member should be eligible to election on the Board of Directors.

These criticisms were answered by the Secretary and the whole correspondence was subsequently reported to the Board of Directors. As will be found in the published Synopsis of the Proceedings of the Board of Directors (see page 326 of Part I of the 1925 Yearbook, Item 10), "The Board voted unanimously that no further action need be taken concerning the matter raised in this correspondence."

At a meeting of the Board held at Cincinnati, February 21, 1925, however, it was agreed that, if even only three of our 700 or more active members wished to re-open this matter and discuss the policy which was unanimously adopted at the last annual meeting of the Society, an opportunity should be offered at this time.

Following the presentation of this situation, remarks were made or questions asked by Mr. Fairchild, Mr. Deahl, and Mr. Washburne, but as no desire was expressed to re-open the matter formally, no motion was made and consequently the method of electing the Board of Directors remains *in statu quo*.

On motion, the Society then adjourned.

GUY M. WHIPPLE, *Secretary-Treasurer.*

SYNOPSIS OF THE PROCEEDINGS OF THE BOARD OF DIRECTORS DURING 1925.

At the behest of the Board of Directors, the Secretary has prepared the following synopsis, in order that the members of the Society may be informed concerning the acts and policies of those who are directing the Society. The synopsis does not comprise all the business transacted by the Board; matters of minor importance have been omitted.

First 1925 Meeting of the Board

(Cincinnati, Ohio, February 21, 1925.)

Present: Messrs. Courtis, Judd, Koos, Lord, Whipple.

Absent: Messrs. Charters, Rugg.

(1) The accounts of the Treasurer for 1924 were audited by Messrs. Lord and Koos.

(2) A memorial statement and resolutions concerning the late Samuel Chester Parker were presented and it was directed that they be put before the Society at its annual business meeting.

(3) A drawing by lot determined the dates of retirement from the Board of Messrs. Lord and Rugg to be December 31, 1925, and those of Messrs. Courtis and Koos to be December 31, 1926.

(4) It was voted that Messrs. Courtis and Whipple should represent the Society on the Council of the A. A. A. S.

(5) The Board authorized a committee of nine, under the chairmanship of Professor Koos, to serve as the Society's committee on Extra-Class Activities. The expenses of the committee were limited to $800.00.

(6) The Board considered favorably a suggestion made by Professor J. H. Stoutemyer, of Kearney, Nebraska, that a Yearbook should be prepared on "The Making of Textbooks." It was decided to enlarge the scope of this topic to include methods of selecting textbooks for use in public school systems. The secretary was requested to interview Professor J. B. Edmonson, of the University of Michigan, concerning his willingness to serve as chairman of such a committee.

(7) After hearing a communication from Miss Flora Nettleman, of Toledo, suggesting the preparation of a yearbook on "Geog-

raphy," it was voted that the suggestion be presented at the business meeting of the Society without further recommendation at this time from the Board of Directors.

(8) A similar disposition was made of the proposed yearbook on "Mental Hygiene," concerning which the Secretary had carried on considerable correspondence with various persons.

(9) The Secretary reported objections made by two or three active members with respect to the methods of electing members of the Board of Directors. In order to encourage free discussion of this matter the Board unanimously voted to instruct the Secretary to present at the business meeting a statement of the objections that had been raised, with a request for a thorough discussion, if so desired, of the policy now in force.

Second 1925 Meeting of the Board

(Chicago, Illinois, October 10, 1925.)

Present: Messrs. Charters, Courtis, Judd, Koos, Lord, Rugg, Whipple.

(1) It was voted that the functions and purposes of the National Society for the Study of Education are not sufficiently akin to those of the Arbitration Foundation, Inc., to justify the Society in accepting an invitation of this Foundation to become an associate member of its organization.

(2) On June 23, 1925, Chairman Judd had appointed Professor L. V. Koos as a representative of this Society on the National Committee on Research in Secondary Education. Professor Koos reported informally what had been done by this committee and filed with the Secretary memoranda pertaining to it.

(3) The Board voted, without discussion, to make the term of the Secretary-Treasurer three years, as had obtained prior to the creation of the Board of Directors. On motion G. M. Whipple was continued as Secretary-Treasurer for the three years beginning at the February 1926 meeting.

(4) It was unanimously voted to tender the printing of the 1926 Yearbooks to the Public School Publishing Company on a cost basis in accordance with estimates furnished by that company.

(5) It was unanimously voted to authorize the Secretary to sign a contract with the Public School Publishing Company whereby

the gross returns from the commercial sales of the yearbooks should be distributed 35% to the Public School Publishing Company and 65% to the National Society for the Study of Education.

(6) Tentative programs for two meetings at Washington were proposed and endorsed.

(7) Reports were received from the chairmen of the Society's Yearbook Committees on (a) "Curriculum-Making," (b) "Extra-Curricular Activities," (c) "Measuring Teaching," (d) "Possibilities and Limitations of Training," (3) "Selection of Textbooks" and (f) "Safety Education."

The reports of the Committees on "Extra-Curricular Activities" and "Safety Education" were accepted and these were ordered printed for the February 1926 meeting. The substance of the reports upon the other yearbooks is presented elsewhere. (It may be explained that the idea of the yearbook on "Safety Education" was presented originally from without the society, subsequent to the February 1925 meeting of the Board, and that the arrangements for the production of this yearbook were carried on by the Board of Directors through correspondence.)

(8) Comparatively little active interest had been manifested in the suggestion that a yearbook might be prepared on "Geography." After some five minutes' discussion the Board agreed that it would be doubtful if it would be contributing helpfully to progress in education if it should now attempt the yearbook on "Geography." It was voted that the matter be laid upon the table.

(9) The Secretary read still further correspondence pertaining to the yearbook on "Mental Hygiene." The Board felt that a yearbook on this topic, rightfully conceived and well done, would be a timely and valuable contribution, but its success would hinge largely on securing a satisfactory committee. It was voted that not to exceed $100.00 should be appropriated to defray the expenses of a conference between the Secretary and Dr. Blatz, of Toronto, who would then submit a written report, prior to the February meeting of the Board, concerning the feasibilty, proper scope, and committee personnel of such a yearbook.

(10) Correspondence was read between the Secretary and Professor Ernest Burnham, of Kalamazoo, concerning the desirability of a yearbook on "Rural Education." It was voted to request Professor Burnham to confer with various persons prominent in

rural education and to submit to the Board, prior to its February meeting, a formulation of possible topics, committee personnel, and other features of such a yearbook, with the understanding that the Board would not at present commit itself for or against the undertaking.

(11) A letter from Supt. W. J. Cooper, of Fresno, California, was read, suggesting that the Society prepare a yearbook on "Supervision." Discussion indicated that this topic might well receive favorable consideration, but no definite action was taken.

(12) A contributor to the yearbooks had raised with the Secretary the question of using some of the Society's funds in paying yearbook contributors; it was voted unanimously that such action was contrary to the spirit of the Society and of its aims and activities.

(13) Mr. Alfred Brown, of the Public School Publishing Company, called the attention of the Board to the approaching twenty-fifth anniversary of the Society, and suggested the preparation of a small brochure commemorative of this event. This suggestion was welcomed by the Board, and the Secretary and publishers were instructed to prepare such a brochure.

(14) No specific sums were allocated for the 1926 budget to cover the cost of manufacturing yearbooks or the cost of Directors' meetings, but the following specific appropriations were made:

(a) Salary of Secretary	$1,500.00
(b) Purchase of Typewriter and Visible Index Files	500.00
(c) For Operation of Secretary's Office	1,250.00
(d) For Additional Expenses of Committee on Curriculum Making	1,400.00
(e) For Additional Expenses of Committee on Training	600.00
(f) For Conference on Mental Hygiene Yearbook	100.00

(15) By arrangements perfected informally on the day following this fall meeting of the Board, it was agreed that the twenty-fifth anniversary of the Society should be celebrated in part by inviting the four honorary members of the Society to be present at the Washington meeting as guests of the Society.

REPORT ON YEARBOOKS IN PREPARATION

The following reports on yearbooks in preparation have been assembled by the Secretary in order to show the status of the work of the Society's various committees undertaking the production of future yearbooks.

I. Yearbook on the Selection of Textbooks

Dr. J. B. Edmonson, University of Michigan, Ann Arbor, Michigan, Chairman.

The membership of this committee is: Dean C. R. Maxwell, University of Wyoming; Professor B. R. Buckingham, Ohio State University; Professor G. T. Buswell, University of Chicago; and Professor J. B. Edmonson, University of Michigan.

This committee has undertaken the consideration of the following topics and problems:

1. What are the present laws governing the selection of textbooks? What has been the trend of such legislation? What has been the trend of judicial opinion?
2. How are textbooks adopted in states having uniform textbook laws? What do experts consider the best plan?
3. What is the educational background of the men writing the textbooks in the elementary-school fields? In the senior-high-school fields?
4. How are textbooks selected in typical cities? What do experts consider the best plan?
5. An evaluation of score cards for measuring textbooks.
6. What is the effect on reading of different sizes of type, varying length of line, and other mechanical features?

II. Yearbook on Measuring Teaching

Dr. S. A. Courtis, University of Michigan, Ann Arbor, Michigan, Chairman

Preliminary consideration of this topic has revealed difficulties, and the magnitude of the undertaking has increased. For these and other reasons, it seems desirable that the publication of this yearbook shall follow, and shall be guided in part by the Yearbook on Curriculum-Making. It is proposed eventually to publish the material in two parts. The personnel of the committee has not been finally determined.

III. Yearbook on the Possibilities and Limitations of Training

Dr. Lewis M. Terman, Stanford University, Palo Alto, California, Chairman

The membership of this committee is: Professors W. C. Bagley, Bird T. Baldwin, Carl C. Brigham, F. N. Freeman, Rudolph Pintner, G. M. Whipple, and L. M. Terman.

Plans for this yearbook were outlined in some detail in the 1925 Yearbook. The general nature of the proposed contents is indicated by the contributions listed herewith, which have been tentatively arranged for:

A brief summary of the literature on the continuity of culture, by W. C. Bagley.

The influence of improved physical conditions on intelligence and school achievement, by Bird T. Baldwin.

A study of orphanage cases by the use of the new International Intelligence Test, by C. C. Brigham.

Analysis of intelligence and achievement test scores of orphanage children, by W. A. McCall.

Teaching right and left directions to children of mental ages four and five, and other orientational problems, by June Downey.

The possibilities and limitations of training with respect to 'handedness,' by June Downey.

The effects of training on special disabilities in reading, spelling, and arithmetic, by Grace Fernald.

The effects of improved physical conditions on intelligence test scores, by Mabel Fernald.

Comparison of resemblance found between true sibs with that found between foster children and their foster sibs, by F. N. Freeman.

The effects of training in tapping and in memory for digits, and transfer of effects in the case of both of these functions, by Arthur I. Gates.

The effects of systematic training on musical sensitivity, by L. S. Hollingworth.

The relative achievement at 140 I.Q. and 160 I.Q., by L. S. Hollingworth.

Re-tests of 1000 children at half-yearly intervals by means of group tests, by A. M. Jordan.

Effects of school attendance on intelligence test scores, by A. M. Jordan.

The influence of the language factor on intelligence test scores, by Bertha Luckey.

Methods of measuring the relative influence of nature and nurture, by T. L. Kelley.

Annotated references on the possibilities and limitations of training (and possibly one or more investigations to be reported), by Rudolph Pintner.

Analysis of test scores of negro children with reference to the influence of environment, by L. A. Pechstein.

The relative influence of mental age and length of school attendance upon achievement, by A. T. Poffenberger.

Effects of training on certain disabilities of college students, by Agnes Rogers.

A comparison of scores earned by parents and their children on achievement tests, by G. M. Ruch.

The influence of teacher training, school costs, etc., on the achievement of high-school pupils, by G. M. Ruch.

The influence of motivation on progress in reading, by G. M. Ruch.

The effects of training on material of the Binet type, by G. M. Ruch.

The effects of training in the use of elemental musical capacities, by C. E. Seashore.

The influence of mind-training exercises on mental age and achievement scores, by B. R. Simpson.

Analysis of scores earned by twins and ordinary sibs in some 30 physical and mental measurements, by Stevenson Smith.

The effect of length of school attendance upon achievement scores, by Percival Symonds.

Parent-child resemblance (on Binet and other tests) compared with fosterparent-fosterchild resemblances, by L. M. Terman.

Parent-child resemblance as measured by group test scores, by L. M. Terman.

Four studies of the influence of training on Binet test scores, by L. M. Terman.

Mental age limitations on ability to read, by L. M. Terman.

Data on university students with reference to the influence on achievement of such factors as goiter, type of room-mate, intellectual attitude, credit in prerequisite courses, etc., by H. A. Toops.

Bearing of formal discipline studies on the problems of the Yearbook, by G. M. Whipple.

Re-tests of young children (some of these tested before and after adoption), by Helen T. Woolley.

Among the most extensive of the investigations above listed are those of Freeman and Terman on foster children. For these two comparison studies a total of $15,000 has been made available from the Commonwealth Fund.

In addition, it is hoped that contributions will be made by John Anderson, W. F. Dearborn, H. H. Goddard, J. D. Heilman, J. B. Miner, and M. J. Van Wagenen.

It is hoped that this yearbook will be ready for publication in 1927 or 1928.

IV. Yearbook on the Technique of Curriculum-Making

Dr. Harold O. Rugg, Lincoln School, Teachers College, New York, Chairman

The membership of this committee is: Professors Franklin Bobbitt, F. G. Bonser, W. W. Charters, George Counts, Ernest Horn, C. H. Judd, F. J. Kelly, W. H. Kilpatrick, G. A. Works, and H. O. Rugg.

This committee held important meetings on September 21, and November 21 and 22, 1925.

It is hoped to publish its report in two volumes, perhaps as the 1927 Yearbook of the Society.

The committee has drawn up a composite statement of the foundations of curriculum-making which all members of the committee, or a majority of them, are willing to endorse.

It is tentatively planned to include in the first volume of this committee's report the following material:

Chapter on the development of methods of curriculum construction, by H. O. Rugg.
Legislation affecting school curricula, 1923-1925, by Flanders.
Review and critique of practices in curriculum-making in elementary schools, by S. A. Courtis.
Review and critique of practices in curriculum-making in high schools, by George Counts.
Review and critique of practices in rural schools (by study of selected state department), by G. A. Works.
Review and critique of curriculum-making in laboratory schools, by F. G. Bonser.
Curriculum reconstruction in the colleges, by F. J. Kelly.
Review and critique of curriculum-making for the professions, special occupations and so forth, by W. W. Charters.
Bibliography, by Hockett.

It is planned to devote the second volume to the "theoretical foundations of curriculum-making" and to include in it at least three illustrations of curriculum-making.

FINANCIAL REPORT OF THE SECRETARY-TREASURER OF THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

JANUARY 1, 1925, TO DECEMBER 31, 1925, INCL.

RECEIPTS FOR 1925

Balance on hand, January 1, 1925			$13,788.66
From Sale of Yearbooks by the Public School Publishing Company:			
Balance on royalties, June to December, 1924	$3,438.42		
Royalties, January to June, 1925	8,154.19	$11,592.61	
Interest on bonds, etc.:			
Interest on Registered Liberty Bond	$ 42.50		
Interest on other Liberty Bonds	38.22		
Interest on Liberty Bond Account	27.06		
Interest on Dominion of Canada Bond	55.00		
Interest on Continental Gas & Electric Bond	90.00		
Interest on Detroit-Edison Bond	50.00		
Interest on U. S. Treasury Bond	42.50		
Interest on Royalties	68.77		
Interest on Savings Account	18.75		
Interest on Checking Account	67.18	$ 499.98	
Dues from Active and Associate Members		$ 4,479.35	
Total Income for the Year			$16,571.94
Total Receipts, including initial balance			$30,360.60

EXPENDITURES FOR 1925

Yearbooks

Publishing and Distributing Yearbooks:			
Printing 6000 24th Yearbook, Parts I and II		$ 5,993.26	
Freight on 24th Yearbook		166.90	
Mailing 24th Yearbook		792.34	
Mats and stereos for 24th Yearbook		1,019.53	
Reprinting 3000 24th Yearbook, Part I		1,052.25	
Reprinting 5067 24th Yearbook, Part I		1,739.60	
Reprinting 3057 24th Yearbook, Part II		1,441.80	
Reprinting 500 11th Yearbook, Part I		240.63	
Reprinting 2038 18th Yearbook, Part II		287.10	
Insurance on Yearbooks		20.10	
			$12,753.51
Preparation of Yearbooks:			
Expenses Committee, 24th Yearbook, Part II	$	88.25	
Expenses Committee, Yearbook on Curriculum		1,160.94	
Expenses Committee, 25th Yearbook, Part II		167.70	
Expenses Committee, Yearbook on Textbooks		25.03	
Expenses Proposed Mental Hygiene Yearbook		37.10	
			$ 1,479.02
Total Cost of Yearbooks			$14,232.53

Meeting of Officers

Board of Directors, October Meeting		$ 214.00

Secretary's Office

Secretary's Salary	$ 1,291.66	
Traveling Expenses	115.96	
Clerical Assistance	467.10	
Equipment	302.10	
Postage and Express	117.00	
Stationery and Printing	170.58	
Supplies	59.71	
Telegraph and Telephone	7.21	
Safe Deposit Box	2.50	
Dues Refunded, Bad Checks	13.00	
Exchange	.19	
Miscellaneous	19.00	
Total for Secretary's Office		$ 2,566.01
Total expenditures for 1925		$17,012.54

SUMMARY

Total expenditures for 1925		$17,012.54
Balance on hand December 31, 1925:		
Checking Account	$ 1,280.39	
Savings Account	5,018.75	
U. S. A. Treasury Certificates	800.00	
Dominion of Canada Bond (cost value)	979.75	
Continental Gas & Electric Bond (cost value)	930.00	
Detroit-Edison Bond (cost value)	940.00	
U. S. A. Treasury Bond	1,000.00	
Liberty Bonds (cost value)	1,816.97	
Undeposited Dues	579.20	
Checks out for collection	3.00	$13,348.06
Total		$30,360.60

MEMBERSHIP, JANUARY 15, 1926

(Paid in advance for 1926)

Honorary members	4
Active members	731
Associate members	1026
Total	1761

GUY M. WHIPPLE, *Secretary-Treasurer*

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INFORMATION CONCERNING THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

1. Purpose. The purpose of the National Society is to promote the investigation and discussion of educational questions. To this end it holds an annual meeting and publishes a series of Yearbooks.

2. Eligibility to Membership. Any person who is interested in receiving its publications may become a member by sending to the Secretary-Treasurer information concerning name, address, and class of membership desired (see Item 4) and a check for three dollars or two dollars (see Item 5). Membership may not be had by libraries or by institutions.

3. Period of Membership. Applicants for membership may not date their entrance back of the current calendar year, and all memberships terminate automatically on December 31st, unless the dues for the ensuing year are paid as indicated in Item 6.

4. Classes of Members. Application may be made for either active or associate membership. Active members pay two dollars dues annually, receive two copies of each publication, are entitled to vote, to participate in discussion, and (under certain conditions) to hold office. Associate members pay one dollar dues annually, receive one copy of each publication, may attend the meetings of the Society, but may not vote, hold office or participate in discussion. The names of active members only are printed in the Yearbook. There were in 1924 about 600 active and 1000 associate members.

5. Entrance Fee. New active and new associate members are required the first year to pay, in addition to the dues, an entrance fee of one dollar.

6. Payment of Dues. Statements of dues are rendered in October or November for the following calendar year. By vote of the Society at the 1919 meeting, "any member so notified whose dues remain unpaid on January 1st, thereby loses his membership and can be reinstated only by paying the entrance fee of one dollar required of new members." School warrants and vouchers from institutions must be accompanied by definite information concerning the name and address and class of membership of the person for whom membership fee is being paid.

7. Distribution of Yearbooks to Members. The Yearbooks, ready each February, will be mailed from the office of the publishers, only to members whose dues for that year have been paid. Members who desire Yearbooks prior to the current year must purchase them directly from the publishers (see Item 8).

8. Commercial Sales. The distribution of all Yearbooks prior to the current year, and also of those of the current year not regularly mailed to members in exchange for their dues, is in the hands of the publishers, not of the secretary. For such commercial sales, communicate directly with the Public School Publishing Company, Bloomington, Illinois, who will gladly send a price list covering all the publications of this Society and of its predecessor, the National Herbart Society.

9. Yearbooks. The Yearbooks are issued in parts (usually two) every February. They comprise from 250 to 700 pages annually. Unusual effort has been made to make them, on the one hand, of immediate practical value, and on the other hand, representative of sound scholarship and scientific

investigation. Many of them are the fruit of co-operative work by committees of the Society.

10. Meetings. The annual meetings, at which the Yearbooks are discussed, are held in February at the same time and place as the meeting of the Department of Superintendence of the National Education Association.

Applications for membership will be handled promptly at any time on receipt of name and address, together with check for the appropriate amount ($3.00 for new active membership, $2.00 for new associate membership). Applications received up to November 30th entitle the new member to the Yearbooks for that year; those received in December are regarded as pertaining to the next calendar year.

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